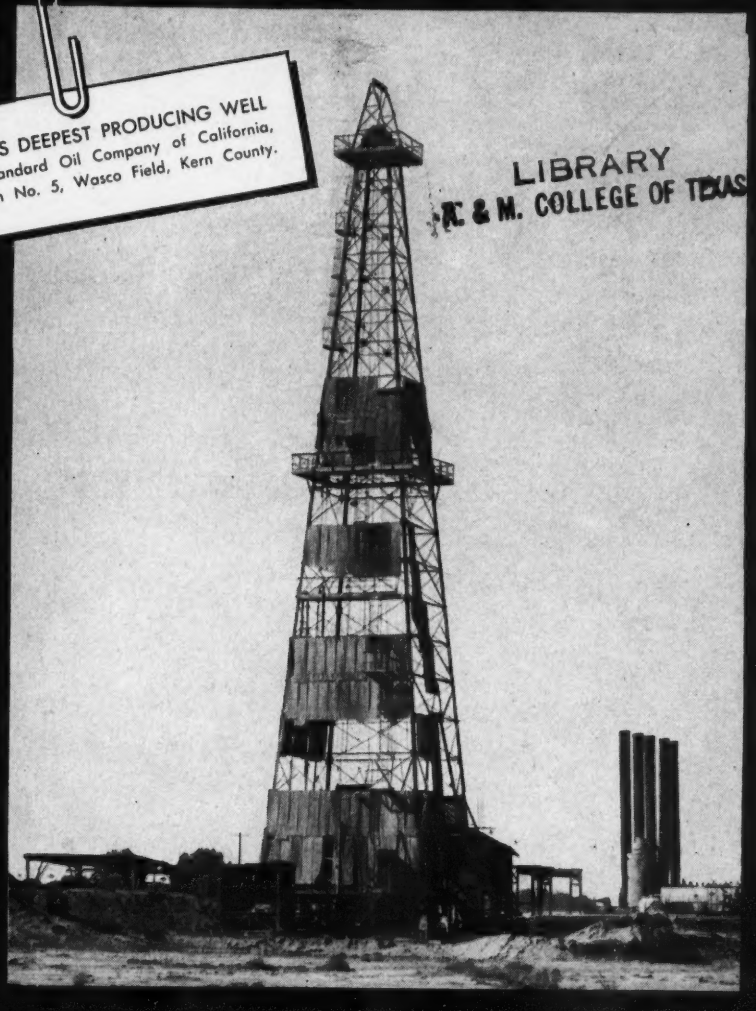
CALIFORNIA
OIL WORLD



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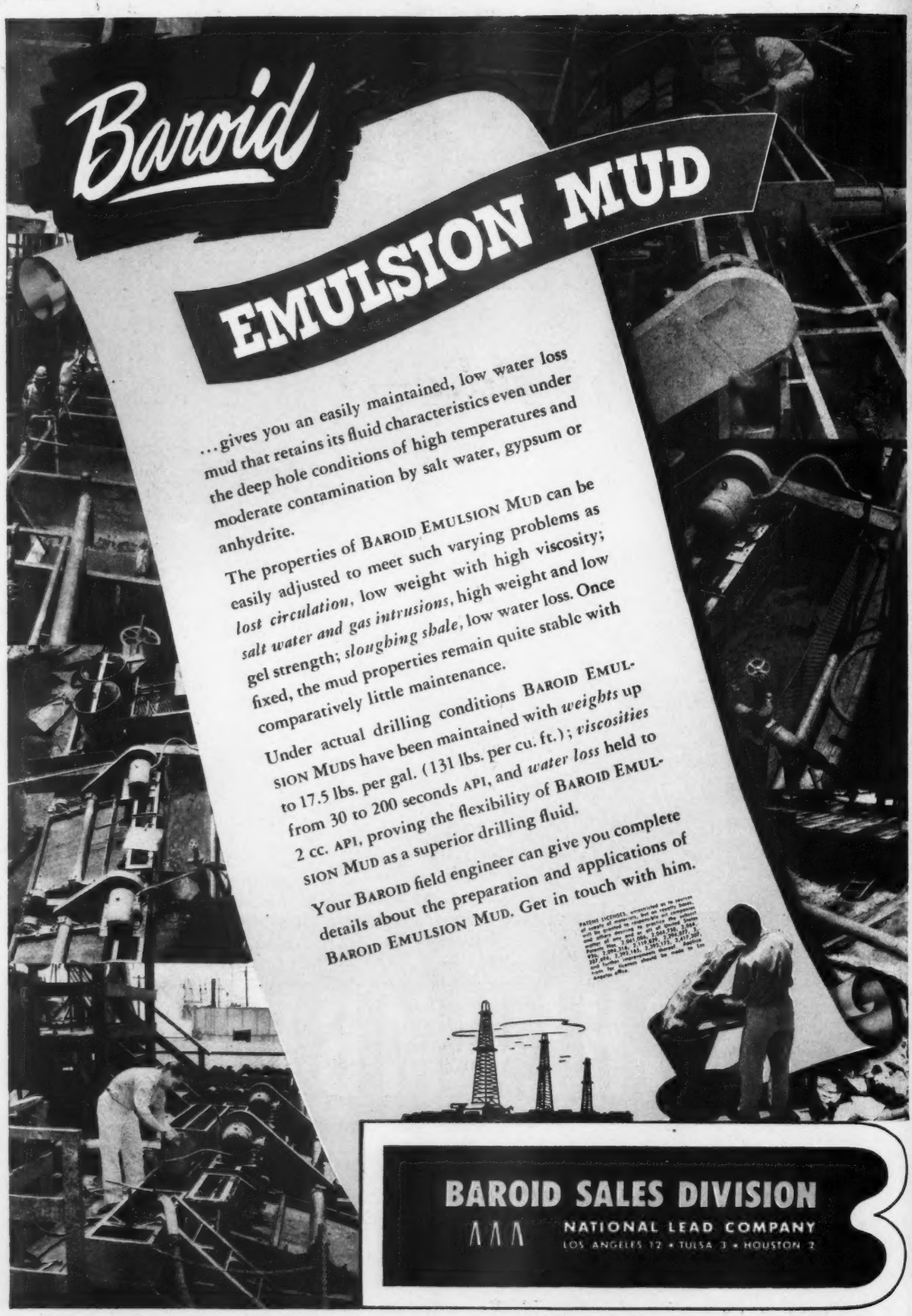
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CALIFORNIA
OIL WORLD

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FOR TIMELY, COMPLETE
OIL NEWS COVERAGE

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October 15th, 1949
Telephone FAirfax 6218

Washington Highlights

The United States Bureau of Mines has completed a survey in four states in the west and south for appropriate oil shale and coal deposits for the establishment of liquid fuel plants in the future. Areas inspected were the Montana strip coal districts, western Kentucky's strip and underground coal deposits, oil shale and coal in Colorado and southeastern Texas natural gas districts. U.S. Army Corps of Engineers and a private engineering company conducted the survey, which indicated that there will be ample raw materials and water for large capacity plants in semi-arid parts of the west. Coal reserves in abundance were found. This makes unnecessary the resort to the use of coking coals of quality. Meantime, in the opinion of W. M. Stratford, president of Texaco Development Corporation, a commercial oil shale industry is a long way off. He viewed as unsound to dwell upon a commercial shale operation today when for the same money you can drill a lot more oil wells. Stratford was one of 400 officials of American oil and automobile industries which inspected the Federal Government's shale oil experimental plant at Rifle, Colorado. He emphasized, however, that the Rifle project was a good thing for the Government to do and it is nice to have shale oil for a backing when needed.

President Truman has assigned his personal plane, the "Independence" to fly the Shah of Iran to Washington on a official visit from Teheran in November. The Shah will arrive November 16.

By the end of the current year there will be 32,298,000 automobiles, trucks and busses on roads and highways throughout the country. This was estimated by the Bureau of Public Roads, which announced that registration of motor vehicles will increase 2,675,736, or 66 per cent above 1948. Not included in the estimate is publicly owned vehicles of which 529,062 were registered in 1948.

Word from Hamburg, Germany, tells of German oil well drillers and geologists combining their resources in an earnest search for new sources of oil. Germany imports most of her petroleum and the present hunt is spurred by a desire to become partly self-supplied with necessary product. Center of the new search is the plains in northern Germany, where oil has showed in a number of districts. Test well drilling during the war proved the existence of a large oil area straddling the German-Dutch frontier. Slightly more than 20 per cent of oil production in western Germany is controlled by Anglo-American oil groups.

House Speaker Sam Rayburn has intimated that Congress may remain in session until November 1. The Texas Democrat has urged Senate leaders to aid in the drawing up of a program of legislation which "must" be enacted.

Thirsty Californians are finding that by supplementing surface water by pumping deep wells, salt ocean water is brought further inland. The U. S. Geological Service found this to be true in a recent survey in Orange County, California. The Federal agency revealed that five years ago a number of irrigation and public supply wells in the county were abandoned due to the water becoming salty. In the intervening years close to 300 additional wells have become contaminated with sea water. In summation, the study indicated that about 2700 coastal areas in the state cannot be put to use because of the inflow of polluted water.

No. 1 on Russia's priority list of goods most wanted from the United States is oil field machinery. Export of this equipment, however, has been banned since this country denied shipments of "war potential" goods to the Soviets in March last year. Viewed as the first real evidence of an abatement in the "cold" trade war between the two countries, the United States through the Commerce Department has approved the immediate export to Russia of oil field machinery worth $500,000.

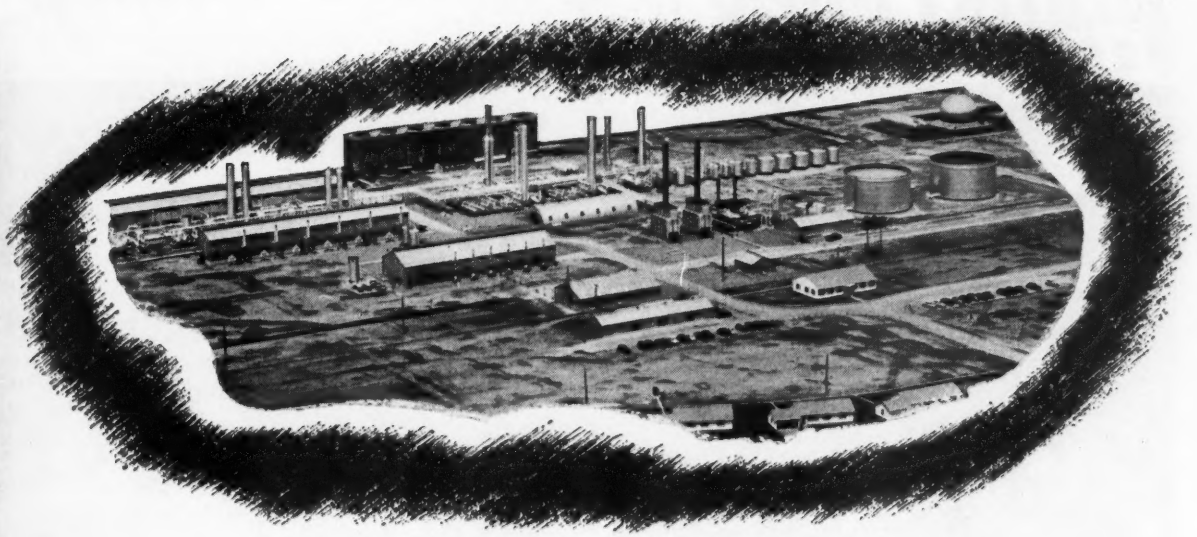
Again! "BIG ANGLES" A

Installation of sixteen 8-cylinder Clark "Big Angle" Compressors, totaling 25,600 horsepower, at the Slaughter Gasoline Plant.

CLARK "BIG ANGLE" C

ONE OF THE DRESSER INDUSTRIES

'AID CONSERVATION



25,600 CLARK "BIG ANGLE" HORSEPOWER SERVES MAJOR CONSERVATION PROJECT AT SLAUGHTER POOL, TEXAS

At the new Slaughter Pool Natural Gasoline and Gas Conservation plant*, Clark "Big Angle" Compressors are a vital part of a major conservation project. These units make up the largest compressor installation in the natural gasoline industry.

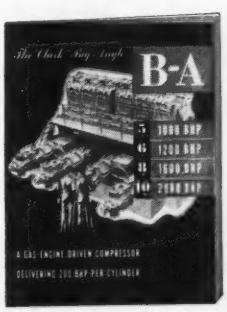
The plant is designed for the production of natural gasoline, butane and propane—from gas formerly burned off as flare gas. In addition, the dry residue gas is sold to a gas pipe line company for use as fuel.

Sixteen 8-cylinder "Big Angles", rated at 1600 BHP each, are used to compress about 90,000,000 cubic feet of "casinghead" gas per day from 13.2 psia to 713 psia in three stages—at a plant elevation of 3,000 feet.

The Clark "Big Angle" Compressors are aiding conservation by meeting the Oil Industry's needs for high-powered, heavy-duty, Gas-Engine-Driven Units. The BA has a wide operating range and is the most accessible for servicing of any compressor . . . saves money on both maintenance and installation costs.

WRITE FOR BOOKLET

For complete description, dimensional drawings and other data on "Big Angle" Compressors, send for Bulletin B-A.



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*THE SLAUGHTER PLANT IS OWNED BY: Stanolind Oil and Gas Company; The Texas Company; Honolulu Oil Corporation; Magnolia Petroleum Company; The Devonian Company; The Atlantic Refining Company; Saltmount Oil Company; Mid-Continent Petroleum Corporation.

'COMPRESSORS ★ ★ ★

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Find out about the Waukesha Super-Duty DIESEL SIX (6-WAKDU) a four-stroke cycle, overhead valve unit, of the same size, that burns all high speed Diesel fuels cleanly, with lively acceleration, high economy, and easier starting—get Bulletin 1115.

WAUKESHA MOTOR COMPANY, WAUKESHA, WIS.
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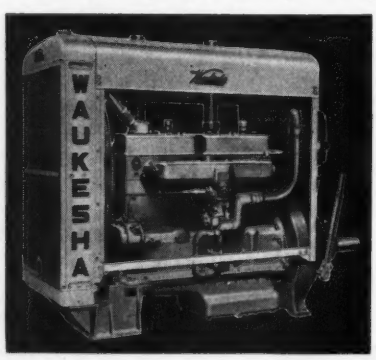
(Above) **Waukesha (6-WAK) Super-Duty Six engines,** operating on natural gas

●

Super-Duty Six Gas Power Unit (6-WAKU)



WAUKESHA ...Gas Power
Diesel Power ... POWER

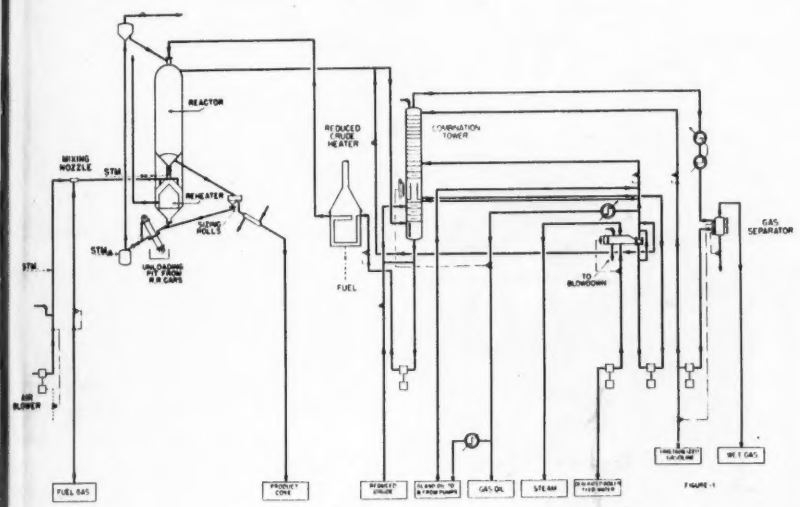
Application Of Contact Coking To California Refining

A. H. Schutte

The Lummus Company

Fall Meeting

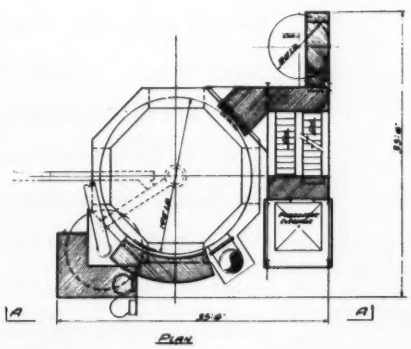
This paper presents a study of the effect of adding contact coking to the existing equipment in a typical California refinery. This process offers an economical method of converting reduced crudes into maximum yields of cracking stock readily convertible into high quality gasoline. It minimizes fuel oil production in the refinery and releases valuable mid-barrel distillates currently used for fuel oil blending. In order to obtain the maximum benefit from the coking process, additional catalytic cracking capacity should also be provided in order to enable the refiner to meet the present gasoline octane requirements.

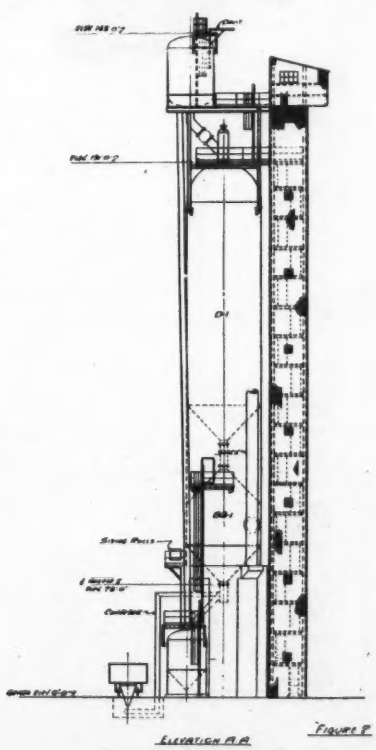


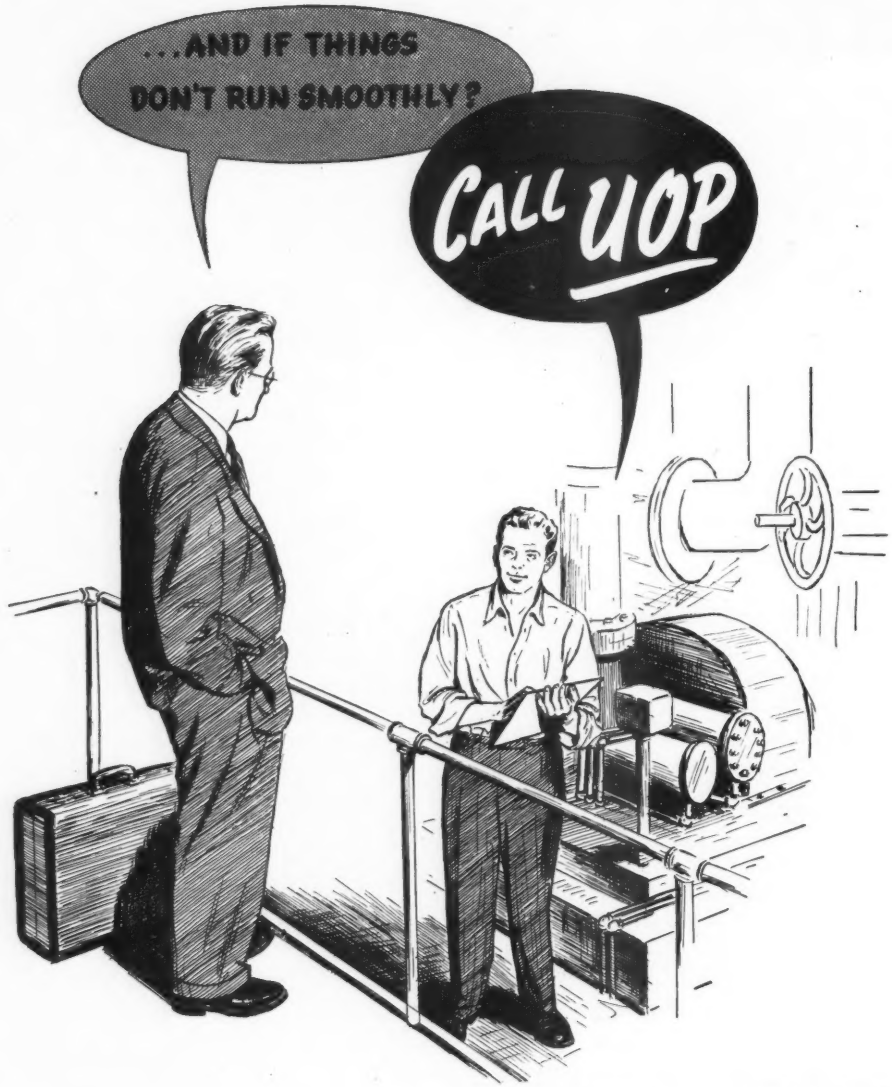
Basically, contact coking consists of applying a residual stock to a continuous stream of preheated coke particles produced in the process. The operating conditions are so adjusted that the charge oil boiling above the range of the desired gas oil product is taken up on the coke particles as a thin non-viscous liquid film. The wetted coke particles are then allowed a residence time of fifteen to forty minutes in a moving bed maintained at sufficient temperature to convert the liquid oil into gas, gasoline, gas oil and coke. By properly adjusting the coke to oil ratio and the particle size range of the circulating coke stream, a free flowing condition is obtained and the bed particles may be readily drawn off and reheated for recirculation to the oil contacting zone.

Development work on this coking process has been carried out during the last six years and has been described in an earlier publication. The data and experience obtained from this work gives a firm basis for the design of large commercial units.

A typical contact coker flow diagram is shown in Figure 1. If the reduced crude charge contains material boiling in the desired product gas oil range, it may be fed to the bottom section of the synthetic tower and the virgin gas oil directly distilled. The reduced crude and recycle from the bottom of this tower is then preheated in a conventional oil heater to a normal temperature of 800 to 850°F. and thoroughly mixed with the coke circulating stream in a contacting zone located above the reactor. The







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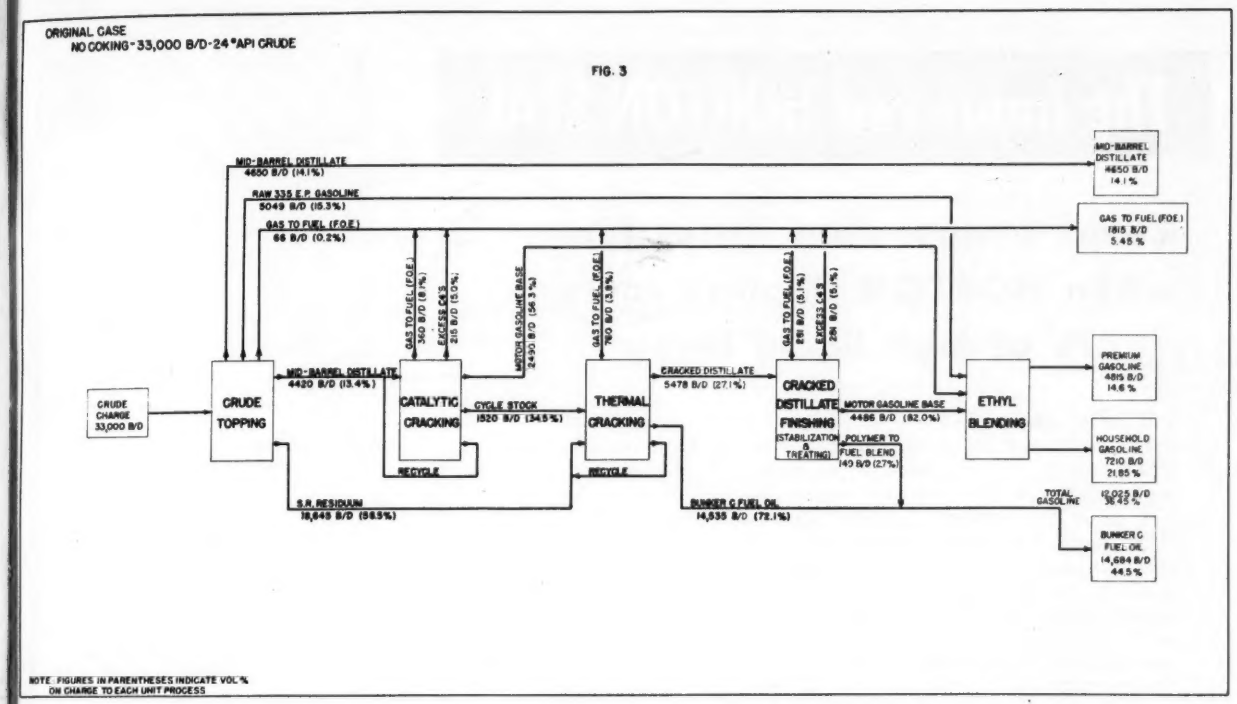
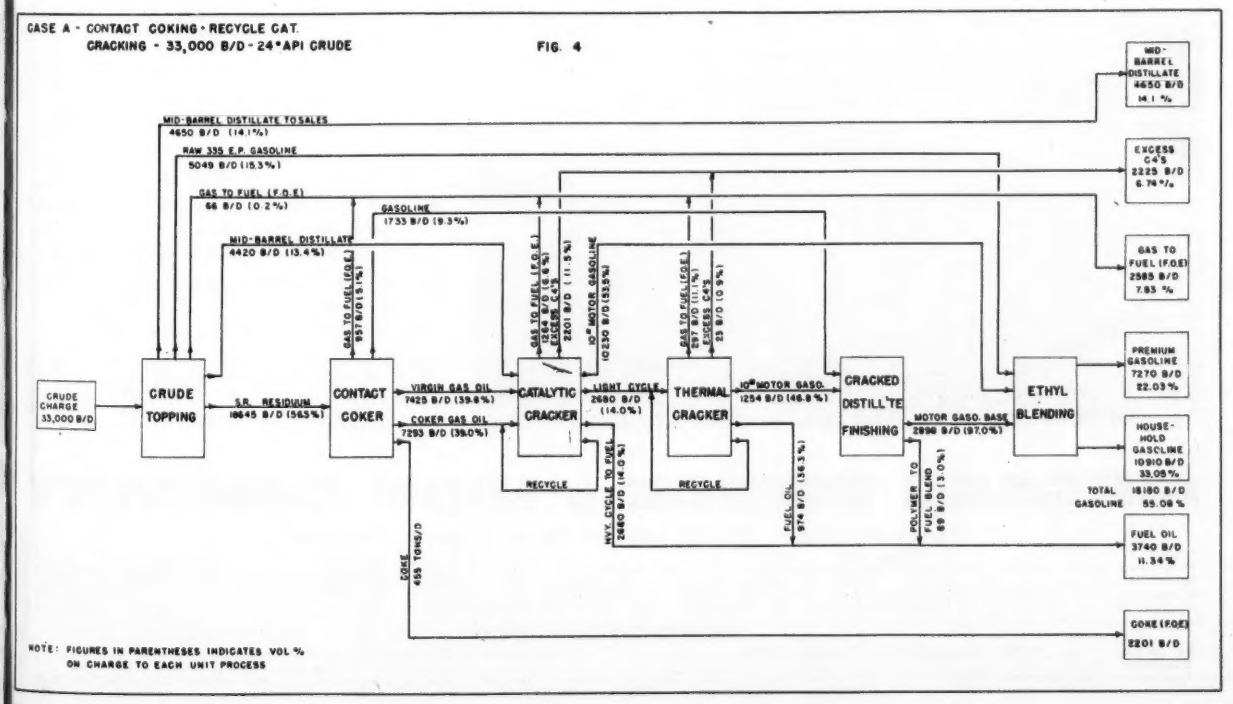

ORIGINAL CASE
NO COKING - 33,000 B/D - 24 °API CRUDE
FIG. 3
MID-BARREL DISTILLATE 4650 B/D (14.1%)
RAW 335 E.P. GASOLINE 5049 B/D (15.3%)
GAS TO FUEL (F.O.E.) 66 B/D (0.2%)
MID-BARREL DISTILLATE 4650 B/D 14.1%
GAS TO FUEL (F.O.E.) 1815 B/D 5.45%
CRUDE CHARGE 33,000 B/D
CRUDE TOPPING
MID-BARREL DISTILLATE 4420 B/D (13.4%)
CATALYTIC CRACKING
CYCLE STOCK 1520 B/D (34.5%)
RECYCLE
THERMAL CRACKING
RECYCLE
CRACKED DISTILLATE 5478 B/D (27.1%)
CRACKED DISTILLATE FINISHING (STABILIZATION & TREATING)
MOTOR GASOLINE BASE 4486 B/D (82.0%)
POLYMER TO FUEL BLEND 149 B/D (2.7%)
ETHYL BLENDING
PREMIUM GASOLINE 4815 B/D 14.6%
HOUSEHOLD GASOLINE 7210 B/D 21.85%
TOTAL GASOLINE 12,025 B/D 36.45%
S.R. RESIDUUM 18,845 B/D (56.5%)
BUNKER C FUEL OIL 14,535 B/D (72.1%)
BUNKER C FUEL OIL 14,684 B/D 44.5%
NOTE: FIGURES IN PARENTHESES INDICATE VOL % ON CHARGE TO EACH UNIT PROCESS

coke flows down through the reactor, through a sealing zone and enters the reheater where it is heated by a combination of radiation and convection to the proper temperature for recirculation. In the unit shown, the coke recirculation is done by means of a pressure lift. The coke particles grow in size approximately one thousandth of an inch with each pass through the reactor and net coke production manifests itself as an increase in reactor inventory. Product coke is drawn off to maintain the inventory essentially constant. Usually the largest particles of the circulating stream having a major dimension of ¾ of an inch are withdrawn as product through a sizing device; either by screening or by elutriation. The circulating coke in the unit will normally contain particles ranging in size from 1/16 inch to ¾ inch, and in order to prevent a general increase in particle size, an adjustable sizing crusher is provided which may be set to crush the largest particles in a small recirculating stream. Since the coke is layed

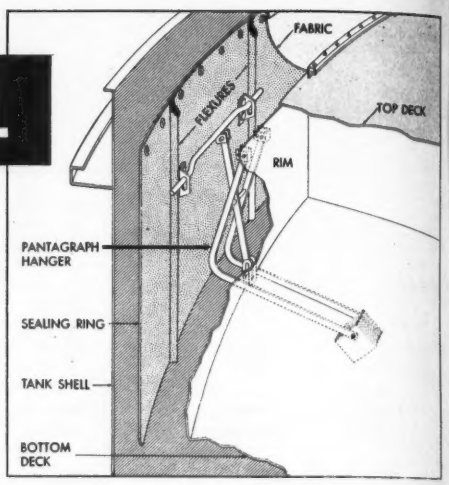

CASE A - CONTACT COKING - RECYCLE CAT. CRACKING - 33,000 B/D - 24 °API CRUDE
FIG. 4
MID-BARREL DISTILLATE 4650 B/D 14.1 %
MID-BARREL DISTILLATE TO SALES 4650 B/D (14.1%)
RAW 335 E.P. GASOLINE 5049 B/D (15.3%)
GAS TO FUEL (F.O.E.) 66 B/D (0.2%)
EXCESS C4'S 2225 B/D 6.74%
GASOLINE 1733 B/D (9.3%)
MID-BARREL DISTILLATE 4420 B/D (13.4%)
GAS TO FUEL (F.O.E.) 2585 B/D 7.83 %
GAS TO FUEL (F.O.E.) 957 B/D (5.1%)
GAS TO FUEL (F.O.E.) 1264 B/D (6.8%)
EXCESS C4'S 2201 B/D (11.5%)
10° MOTOR GASOLINE 10230 B/D (53.5%)
GAS TO FUEL (F.O.E.) 257 B/D (1.1%)
EXCESS C4'S 23 B/D (0.9%)
PREMIUM GASOLINE 7270 B/D 22.03%
CRUDE CHARGE 33,000 B/D
CRUDE TOPPING
S.R. RESIDUUM 18845 B/D (56.5%)
CONTACT COKER
VIRGIN GAS OIL 7425 B/D (39.8%)
COKER GAS OIL 7293 B/D (39.0%)
CATALYTIC CRACKER
LIGHT CYCLE 2680 B/D (14.0%)
RECYCLE
THERMAL CRACKER
10° MOTOR GASO. 1254 B/D (46.8%)
RECYCLE
CRACKED DISTILLATE FINISHING
MOTOR GASO. BASE 2898 B/D (97.0%)
ETHYL BLENDING
HOUSE-HOLD GASOLINE 10910 B/D 33.05%
TOTAL GASOLINE 18180 B/D 55.08 %
MIX. CYCLE TO FUEL 2680 B/D (14.0%)
FUEL OIL 974 B/D (36.3%)
POLYMER TO FUEL BLEND 65 B/D (3.0%)
FUEL OIL 3740 B/D 11.34%
COKE 455 TONS/D
COKE (F.O.E.) 2201 B/D
NOTE: FIGURES IN PARENTHESES INDICATES VOL % ON CHARGE TO EACH UNIT PROCESS

The Improved HORTON SEAL

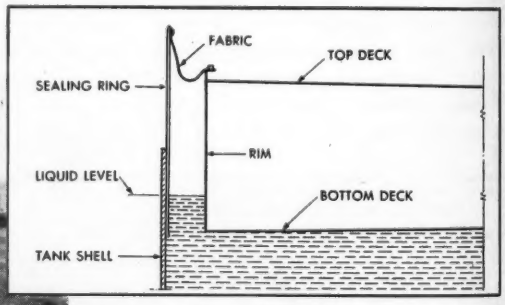
Keeps evaporation losses *low* when HORTON floating roofs are at *high* liquid levels

With the improved Horton seal, you can utilize more of your tank capacity and still have complete protection from evaporation losses. As the view below shows, tanks with Horton Floating Roofs can be filled until the sealing ring extends above the tank shell. Supplemental "gadgets" to improve roof efficiency at the top of the tank are not necessary and you do not need to extend the tank shell to gain more usable tank capacity. Furthermore, the sealing ring retains its vertical position, even when it extends above the tank shell, and the entire assembly of seal and roof will go back down into the tank safely and easily as the liquid level is lowered.

With improved seal construction, the Horton Floating Roof provides maximum protection against evaporation losses and fire hazards. Designed to float directly on the liquid, the Floating Roof may be installed on new or existing flat-bottom tanks. It is most efficient for tanks that are filled and emptied more than five or six times per year, tanks in blending service and tanks storing corrosive products. For complete details, ask our nearest office for a copy of Bulletin B.



When the Floating Roof is below the top of the tank, the Horton Seal functions as shown in the diagram above to prevent the escape of vapors. The fabric closes the space between the top deck and sealing ring, and the sealing ring is held snugly against the tank shell. As the liquid level nears the top of the tank, a part of the sealing ring will extend above the tank. But the pantagraph hangers inside the seal still hold the sealing ring vertically, with the lower portion in contact with the shell. Thus the effectiveness of the seal is maintained even though part of the sealing ring is above the tank top.



The diagram above shows that the liquid level can be near the top of the tank and the improved Horton seal will still prevent the evaporation loss effectively. Even if the liquid should accidentally overflow, the Horton seal will not be damaged, and the floating roof will be safely lowered inside the tank shell as the liquid level recedes.

The view at the left shows the way in which Horton Floating Roofs often extend above the top of the tank shell to provide maximum capacity.

CHICAGO BRIDGE & IRON COMPANY

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Cleveland, 15.....Guildhall Bldg.
Detroit, 26.....Lafayette Bldg.
Havana.....402 Abreu Bldg.
Houston, 2.....National Standard Bldg.
Los Angeles 14.....1502 General Petroleum Bldg.
New York, 6.....165 Broadway Bldg.
Philadelphia, 3.....1700 Walnut Street Bldg.
Salt Lake City, 1.....1504 First Security Bank Bldg.
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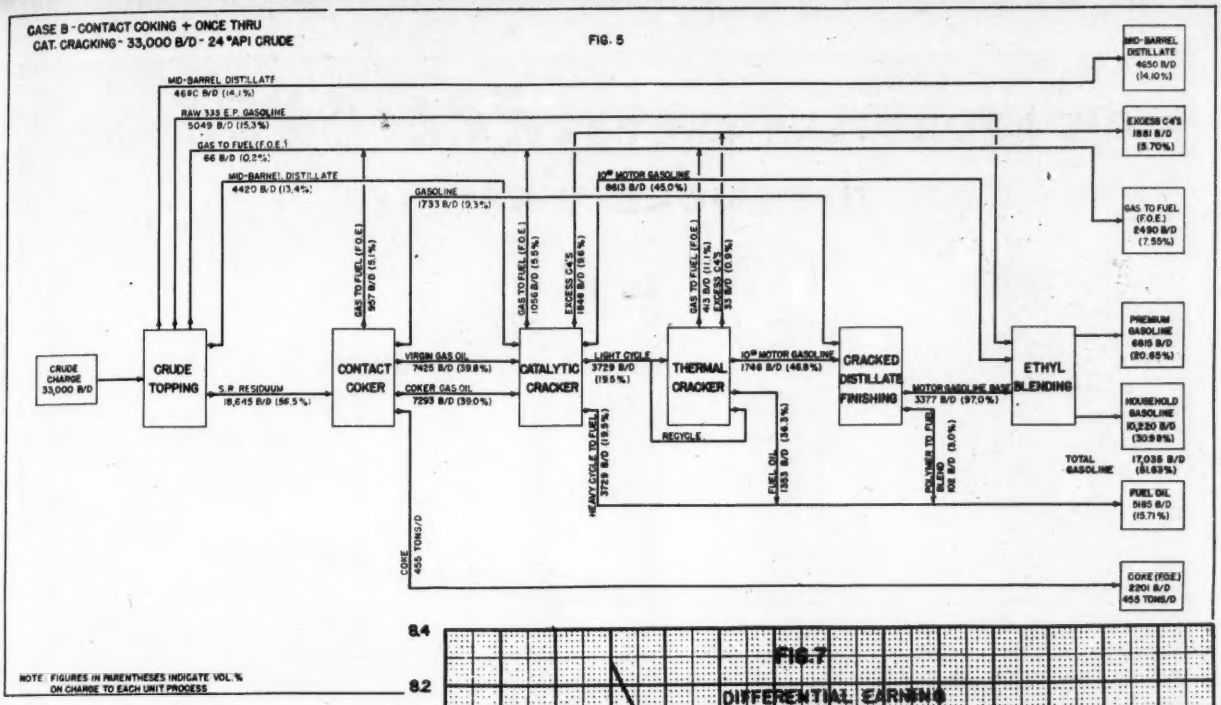
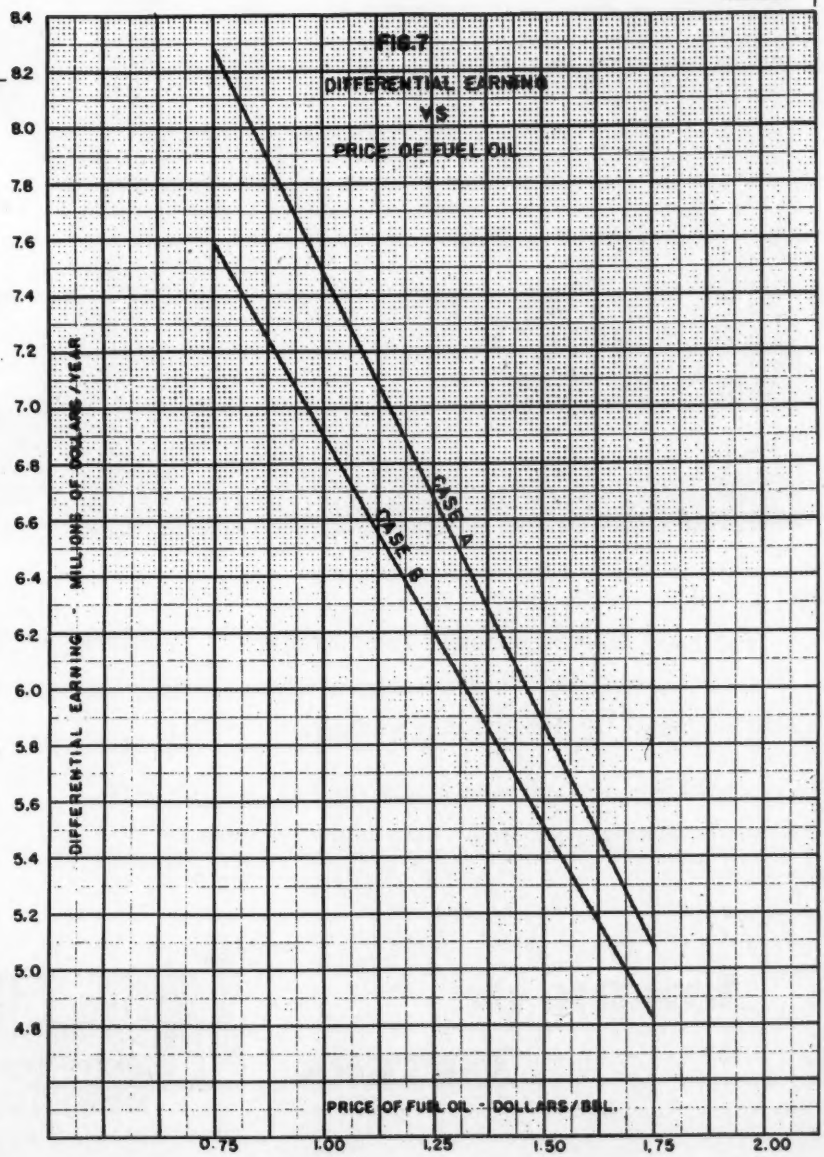

CASE B - CONTACT COKING + ONCE THRU
CAT. CRACKING - 33,000 B/D - 24 °API CRUDE
FIG. 5
CRUDE CHARGE 33,000 B/D
CRUDE TOPPING
CONTACT COKER
CATALYTIC CRACKER
THERMAL CRACKER
CRACKED DISTILLATE FINISHING
ETHYL BLENDING
MID-BARREL DISTILLATE 4690 B/D (14.1%)
RAW 335 E.P. GASOLINE 5049 B/D (15.3%)
GAS TO FUEL (F.O.E.) 66 B/D (0.2%)
MID-BARREL DISTILLATE 4420 B/D (13.4%)
S.R. RESIDUUM 18,645 B/D (56.5%)
GAS TO FUEL (F.O.E.) 957 B/D (5.1%)
GASOLINE 1733 B/D (9.3%)
VIRGIN GAS OIL 7425 B/D (39.8%)
COKER GAS OIL 7293 B/D (39.0%)
COKE 455 TONS/D
GAS TO FUEL (F.O.E.) 1056 B/D (5.5%)
EXCESS C4'S 1849 B/D (10.0%)
LIGHT CYCLE 3729 B/D (19.5%)
HEAVY CYCLE TO FUEL 3729 B/D (19.5%)
GAS TO FUEL (F.O.E.) 413 B/D (11.1%)
EXCESS C4'S 33 B/D (0.9%)
RECYCLE
10# MOTOR GASOLINE 8613 B/D (45.0%)
10# MOTOR GASOLINE 1746 B/D (46.8%)
FUEL OIL 1355 B/D (36.3%)
MOTOR GASOLINE BASE 3377 B/D (97.0%)
POLYMER TO FUEL BLEND 102 B/D (3.0%)
MID-BARREL DISTILLATE 4650 B/D (14.10%)
EXCESS C4'S 1881 B/D (5.70%)
GAS TO FUEL (F.O.E.) 2490 B/D (7.55%)
PREMIUM GASOLINE 6815 B/D (20.65%)
HOUSEHOLD GASOLINE 10,220 B/D (30.98%)
TOTAL GASOLINE 17,035 B/D (51.63%)
FUEL OIL 5185 B/D (15.71%)
COKE (F.O.E.) 2201 B/D 455 TONS/D
NOTE: FIGURES IN PARENTHESES INDICATE VOL.% ON CHARGE TO EACH UNIT PROCESS

down in very thin layers, and is subjected to partial calcination in the reheater, it is high in density, low in volatile matter and high in mechanical strength.

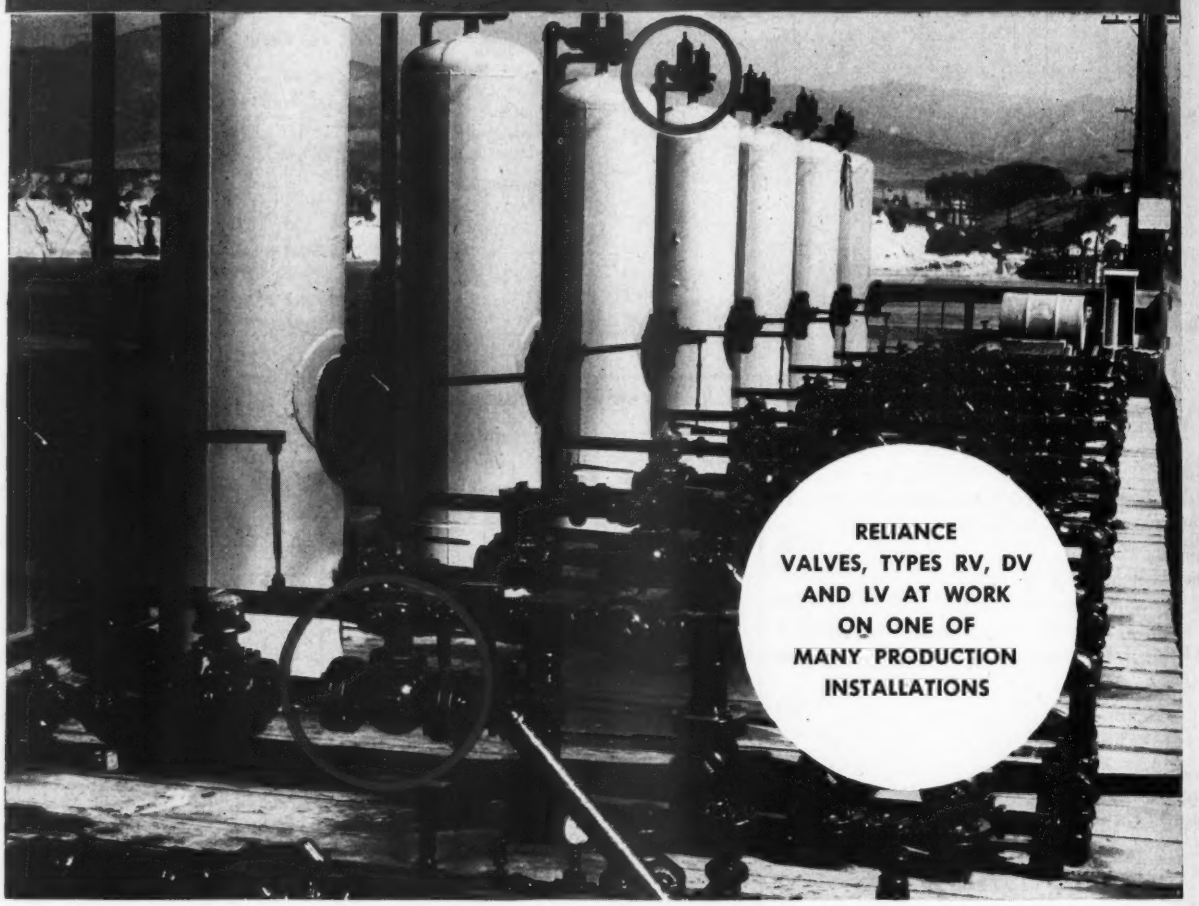
The plan and elevation of a typical contact coker is shown in Figure 2. It will be noted that the arrangement is compact and that no water circulation and clarification equipment is involved. The product coke may be run directly to shipping cars alongside the unit or it may readily be transported as a dry, uniform size material to storage, or to points of use, if it is being burned in the refinery.

In order to show the effect of adding contact coking and additional catalytic cracking, a typical refinery situation shown in Figure 3 has been chosen as the original case with the refinery operating without coking facilities. In this case, the refinery is charged with 33,000 barrels per day of 24 gravity Wilmington Crude and operates with crude topping catalytic cracking, thermal cracking and distillate treating. The products are gas, mid-barrel distillates, premium and house brand gasolines and Bunker C fuel oil. It will be noted that the total gasoline production amounts to 36.5% and Bunker C fuel oil to 44.5% on crude.

Case A shown in Figure 4 charges the same crude as the original case with the same products from



OIL PRODUCERS CHOOSE *RELIANCE* FOR DEPENDABLE SERVICE



In every major oil field, Reliance Valves are on the job day and night, giving trouble-free, efficient service. Reliance offers THREE outstanding advantages:

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(2) SATISFACTION . . . *by insuring sufficient capacity over working range of valves.*

(3) ECONOMY . . . *can be repaired or replaced in the field.*

AMERICAN METERS

RELIANCE REGULATOR DIVISION
AMERICAN METER COMPANY
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Fig. 6 A
COMPARISON OF OPERATING SCHEMES

			ORIGINAL CASE NO COKING B/D	% on Charge
Crude Charge Capacity			33,000	100.0
Composite Refinery Yield				
Premium Gasoline, (9#R.V.P. 81.5 M.M, 91.5 RM)			4,815	14.60
Household Brand Gasoline, (10#R.V.P. 75.5 M.M, 81.5 RM)			7,210	21.85
Total Gasoline			12,025	36.45
Mid-Barrel Distillates			4,650	14.10
Bunker C Fuel Oil			14,684	44.50
Gas to Fuel	(F.O.E.)		*1,815	*5.45
Excess C4's	(F.O.E.)		.....	.....
Coke Products	(F.O.E.)		.....	.....
Products Values		**Unit Price—$/Bbl**		
Premium Gasoline	$/D.....	5.46	26,300	
Household Brand Gasoline	$/D.....	4.87	35,200	
Mid-Barrel Distillates	$/D.....	3.40	15,820	
Bunker C Fuel Oil	$/D.....	1.25	18,370	
Gas to Fuel	(F.O.E.) $/D.....	1.25	*2,240	
Excess C4's	(F.O.E.) $/D.....	1.25	.....	
Coke Products	$/D.....	$10/Ton	.....	
Total	$/D		97,940	

Direct Operating Costs	**Capacity**	**$/Day**
Crude Topping	33,000 B/D	1,980
Contact Coking	.....	.....
Catalytic Cracking—Reactor Charge	7,750	1,705
Thermal Cracking—Total Feed	15,000	1,500
Cracked Distillate Treating	5,480	1,205
Total		6,390
T.E.L. Costs $/D		1,816
Indirect Operating Expenses $/D		1,278
Total Expenses, $/D (Not Incl. Fixed Charges or Crude costs)		9,484
Differential Earnings $/D		0
Differential Earning $/Yr		0
Est. Cost of New Facilities:—Contact Coking		.....
Catalytic Cracking		.....
Gas Plant Extension		.....
Total (Battery Limits Only)		.....

* Includes excess C4's

Fig. 6 B
COMPARISON OF OPERATING SCHEMES

			CASE A CONTACT COKING RECYCLE CAT. CRACK. B/D	% on Charge
Crude Charge Capacity			33,000	100.0
Composite Refinery Yield				
Premium Gasoline, (9#R.V.P. 81.5 M.M, 91.5 RM)			7,270	22.03
Household Brand Gasoline (10#R.V.P. 75.5 M.M, 81.5 RM)			10,910	33.05
Total Gasoline			18,180	55.08
Mid-Barrel Distillates			4,650	14.10
Bunker C Fuel Oil			3,740	11.34
Gas to Fuel	(F.O.E.)		2,585	7.83
Excess C4's	(F.O.E.)		2,225	6.74
Coke Products	(F.O.E.)		2,201	.....
Product Values		**Unit Price—$/Bbl**		
Premium Gasoline	$/D.....	5.46	39,695	
Household Brand Gasoline	$/D.....	4.87	53,155	
Mid-Barrel Distillates	$/D.....	3.40	15,820	
Bunker C Fuel Oil	$/D.....	1.25	4,675	
Gas to Fuel	(F.O.E.) $/D.....	1.25	3,240	
Excess C4's	(F.O.E.) $/D.....	1.25	1,948	
Coke Products	$/D.....	$10/Ton	4,550	
Total	$/D.....		123,083	

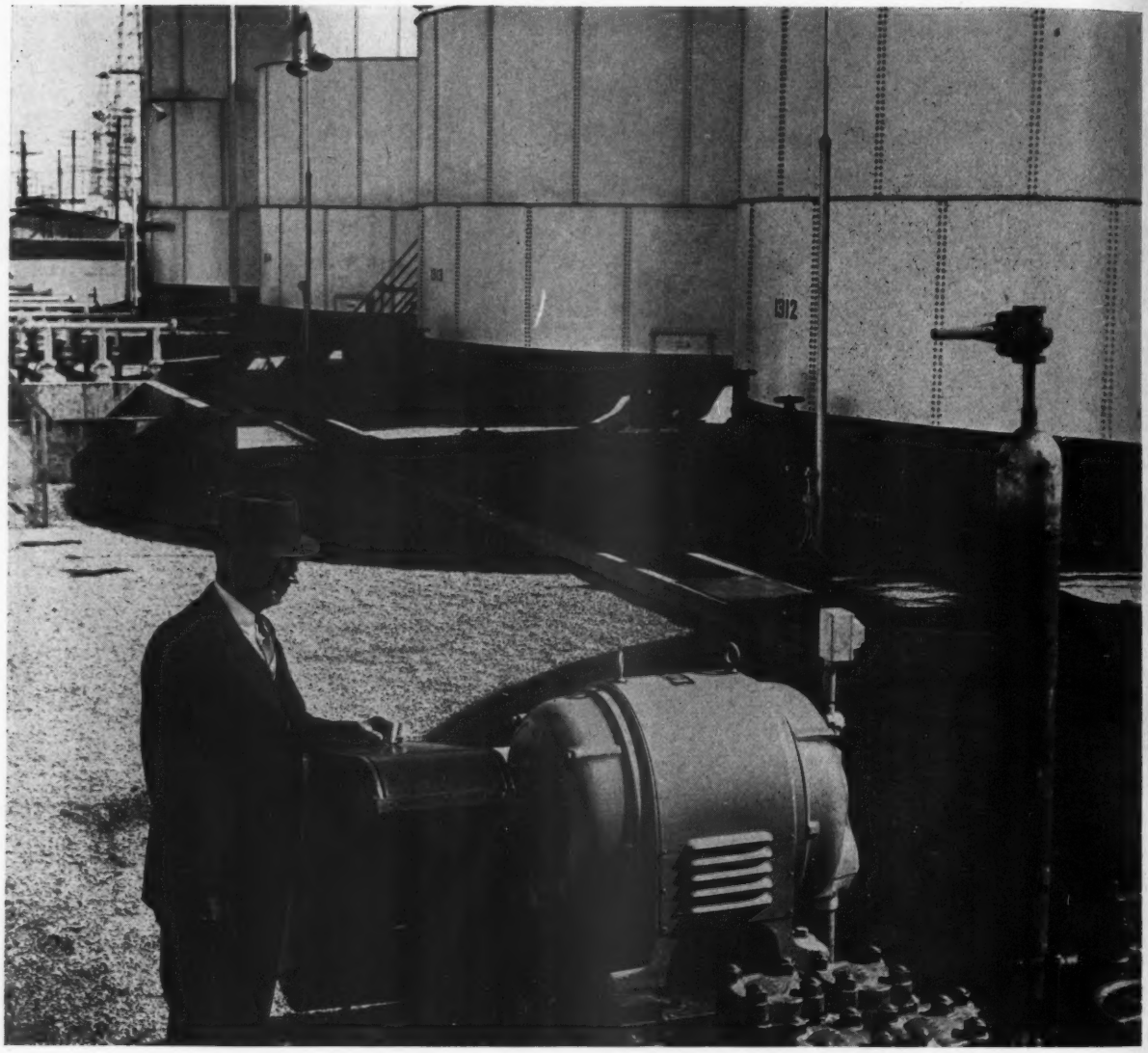
Direct Operating Costs	**Capacity**	**$/Day**
Crude Topping	33,000 B/D	1,980
Contact Coking	11,200	2,240
Catalytic Cracking—Reactor Charge	33,300	7,320
Thermal Cracking—Total Feed	8,850	885
Cracked Distillate Treating	2,990	658
Total		13,083
T.E.L. Costs $/D		687
Indirect Operation Expenses $/D		2,620
Total Expenses, $/D (Not Incl. Fixed Charges or Crude Costs)		16,390
Differential Earning $/D		18,327
Differential Earning $/Yr		6,689,000
Est. Cost of New Facilities:—Contact Coking		2,670,000
Catalytic Cracking		4,470,000
Gas Plant Extension		1,700,000
Total (Battery Limits Only)		8,840,000

crude topping, but in this case the reduced crude is charged to a contact coker producing catalytic cracking stock as a major product. Since the charge to the contact coker is not subjected to the elevated temperatures involved in conventional delayed coking and since the vapors are removed from the contact coker reactor at the top of the bed, the product gas oil is subjected to a minimum of thermal cracking. This results in a catalytic cracking charge of a quality very nearly equal to a virgin stock and permits optimum yields and minimum coke formation on subsequent catalytic cracking. In Case A the catalytic cracking has been set up at 0.7 to 1 recycle ratio, the excess light cycle stock being cracked in an existing thermal cracker and the heavy cycle going to fuel oil. It will be noted that when producing the same mid-barrel distillate yield, the total gasoline production has increased to 55% and the fuel oil decreased to about 11% on crude.

A lower investment cost for new facilities at somewhat decreased gasoline yield may be obtained by operating the catalytic cracking on a once-through basis. This was done in Case B shown on Figure 5. The fuel oil yield is increased about 4½% over the previous case but the total gasoline yield of 51.6% is still very considerably higher than the original case without coking.

The gasoline yields in all of the cases could be increased still further by the addition of catalytic polymerization of the unsaturate gases from cracking and by the thermal cracking of heavy catalytic cracking stock, but for purposes of simplification, these additional operating steps were not added to the present studies.

A comparison of the original refinery operation with Cases A and B is shown in Figures 6a, b, and c. It has been assumed that the refinery originally had capacity for 10,000 barrels of catalytic cracking reactor charge and 15,000 barrels of thermal cracking total feed. The products in the various cases were valued at representative prices and the direct operating costs, tetraethyl lead costs and indirect operat-



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Since complete efficiency is the only real efficiency, many operators put all the production jobs in the electrical basket. Despite the proverb to the contrary, it pays!

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SOUTHERN CALIFORNIA EDISON COMPANY

Fig. 6 C
COMPARISON OF OPERATING SCHEMES

			CASE B CONTACT COKING ONCE-THRU CAT. CRACK. B/D	% on charge
Crude Charge Capacity			33,000	100.0
Composite Refinery Yield				
Premium Gasoline (9#R.V.P. 81.5 M.M, 91.5 RM)			6,815	20.65
Household Brand Gasoline (10#R.V.P. 75.5 M.M, 81.5 RM)			10,220	30.98
Total Gasoline			17,035	51.63
Mid-Barrel Distillates			4,650	14.10
Bunker C Fuel Oil			5,185	15.71
Gas to Fuel	(F.O.E.)		2,490	7.55
Excess C4's	(F.O.E.)		1,880	5.70
Coke Products	(F.O.E.)		2,291	.....
Products Values		**Unit Price—$/Bbl**		
Premium Gasoline	$/D	5.46	37,210	
Household Brand Gasoline	$/D	4.87	49,790	
Mid-Barrel Distillates	$/D	3.40	15,820	
Bunker C Fuel Oil	$/D	1.25	6,480	
Gas to Fuel	(F.O.E.) $/D	1.25	3,120	
Excess C4's	(F.O.E.) $/D	1.25	1,645	
Coke Products	$/D	$10/Ton	4,550	
Total	$/D		118,618	
Direct Operating Costs			**Capacity**	**$/Day**
Crude Topping			33,000 B/D	1,980
Contact Coking			11,200	2,240
Catalytic Cracking—Reactor Charge			19,140	4,210
Thermal Cracking—Total Feed			12,310	1,230
Cracked Distillate Treating			3,480	765
Total				10,425
T.E.L. Costs	$/D			644
Indirect Operating Expenses	$/D			2,085
Total Expenses, $/D (Not Incl. Fixed Charges or Crude Costs)				13,154
Differential Earning	$/D			17,008
Differential Earning	$/Yr.			6,208,000
Est. Cost of New Facilities:—Contact Coking				2,670,000
Catalytic Cracking				2,220,000
Gas Plant Extension				1,100,000
Total (Battery Limits Only)				5,990,000

ing expenses were estimated. In this way, a total not including fixed charges or crude costs was calculated. The differential earnings of Cases A and B over the original operation are shown to be $6,689,000 per year and $6,208,000 per year respectively. The estimated cost of new facilities within the battery limits for these two cases are $8,840,000 and $5,990,000. Allowing for items of cost not included in the tabulated figures and investment requirements outside of battery limits which will vary in every refinery situation, it will be seen that the profitability of the coking operation is very good.

The comparison in the preceding tabulation was made on the basis of a Bunker C fuel oil price of $1.25 a barrel with gas and excess B-B valued at fuel oil price on a fuel oil equivalent basis. In order to determine the effect of fuel oil prices on the profitability of coking, these cases were recalculated at several different prices for Bunker C fuel oil with the result shown on Figure 7 which is a plot showing the differential earnings in millions of dollars per year for Cases A and B at fuel oil prices ranging from $.75 to $1.75 per barrel.

If these comparison studies had been made with conventional delayed coking instead of contact coking they would still show an advantage for coking but this advantage would be less pronounced. Detailed estimates which have been made show that contact coking costs are only 60 to 75% as much as a delayed coking unit of equivalent capacity. In addition to this, the operating costs for contact coking are lower since the decoking crew is eliminated entirely and the utility demand is decreased by eliminating the high pressure decoking water pump and attendant equipment. Since the charge oil in contact coking does not have to be heated to temperatures in the range of 900 to 920°F., the contact coker may be operated on very heavy residual asphalts and pitches which are generally considered inoperable by delayed coking. The contact coking process offers more flexibility in product distribution in that the operating conditions may be varied to obtain a high degree or a very low degree of cracking. When operating at low temperature levels minimum coke production will be obtained and if it is desired to produce some fuel oil products the coke yield still may be further decreased.

If additional thermal or catalytic cracking capacity is not available and new cracking facilities are not to be installed, the contact coker may be designed with a high temperature preheater and the product distribution and quality will then be the same as in delayed coking. At a later date, if more catalytic cracking is installed, the contact coker may be operated at lower oil preheat and higher yields of a near virgin gas oil will then be produced for catalytic cracker charge.

A one hundred barrel per day semi-commercial contact coker is now under construction in California and will be in operation in November. This unit has been designed to duplicate as nearly as possible the conditions of the large unit and will demonstrate the process in conclusive fashion.

The author wishes to acknowledge the helpful interest of Mr. L. F. Strader of the Richfield Oil Corporation and Mr. Fred Hartley of Union Oil Co. and their associates.

Award of an engineering contract for what was described as the "hottest" atomic furnace ever designed was the gist of an announcement by the Atomic Energy Commission. The furnace or reactor will be employed to put to trials materials under the most intense bombardment ever accomplished. The materials reactor will cost approximately $20,000,000 and will be constructed at the commission's new testing station in the vicinity of Arco, Idaho. The contract let is for architect and engineering work associated with the building of the reactor. It was given to Chemicals Plant Division of the Blaw-Knox Construction Company of Pittsburgh, Pa. Outlay for this phase of the work is figured roughly at $1,870,000.

Facts you should know

about the New General Motors Diesel Engine-Torque Converter Unit

150 B. H. P. General Motors Diesel Engine-Torque Converter Unit, powering a Wilson Mfg. Co. portable well servicing rig, takes up no more space than the same engine with conventional clutch and power take-off. Overall length of 6-cylinder unit, 78-15/16". Rig operated by Enterprise Oil Company of Bakersfield, California, is designed to handle service and work-over jobs up to 12,000 ft. depth.

ONE MANUFACTURER ONE RESPONSIBILITY The new torque converter is specifically designed and manufactured by General Motors as an integral unit with the Series 71 two-cycle Diesel engine. Result: a big saving in size and weight—no compromise designs—no divided responsibility.

AUTOMATIC SHIFT FROM TORQUE MULTIPLICATION TO FLUID COUPLING Desirable features and advantages of *both* torque converter and fluid coupling are combined in this converter. Continuous *automatic* transition from 3.6-to-1 torque ratio at stall speed to 1-to-1 torque ratio in fluid coupling. Unit goes into fluid coupling whenever load requirements equal engine torque, without regard to output shaft speed.

MORE WORK IN LESS TIME This new power unit gets the most work done in the least time. Because it is not rigidly geared to the load the engine responds to the throttle and immediately accelerates to a high output range regardless of the speed of the load.

FREEDOM FROM SHOCK LOADS Transmission of power through a liquid cushions both engine and driven machinery from sudden shock loads. Operation is liquid-smooth (free from jerks) at any speed or throttle setting.

FREEDOM FROM STALLS WITH OVERLOAD Fluid circuit prevents engine stalling under any load condition. Ability to exert a smooth pull at any output shaft speed down to zero permits GM Converter-equipped machines to do some operations that are impossible with conventional units.

EASE OF HANDLING Eliminates time lost in unnecessary low gear operation. Operator fatigue is reduced. Work is speeded up with less effort on the part of the operator.

WIDE RANGE OF MODELS The new GM Diesel Engine-Torque Converter unit is made available in 3-, 4- and 6-cylinder single engine units, Twin 4 and Twin 6 multiple engine units with engine ratings from 64 to 294 B.H.P. to meet a wide range of power requirements. *Write or wire for full details.*

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Stewart & Stevenson Services Inc. HOUSTON 11, TEXAS
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Rocky Mountain NEWS

Colorado—Idaho—Montana—New Mexico—Utah—Wyoming—Western Canada

Wyoming

Plans of the U. S. Navy to drill a deep test at the famous Teapot Dome naval reserve north of Casper, Wyo., were confirmed early in October when it was revealed that detailed seismic studies of the structure had been completed by the National Geophysical Co. of Dallas, Tex.

Some of the electric logs of the structure look "fairly encouraging," in the words of Col. O. F. Kotick, deputy director of naval petroleum reserves, who was in charge of the geophysical studies. If analysis of the seismograph data is sufficiently encouraging, the colonel said, the navy probably will ask congress for funds to drill a deep test at Teapot Dome.

Col. Kotick estimated a test to granite would require drilling around 6,750 feet, checking on Sundance, Muddy, Dakota, Lakota and Tensleep on the way down.

Considerable production was obtained from Wall Creek sands in the field by Harry F. Sinclair and associates in the 1920's, when the leasing of the naval reserves became a national scandal. It was reported the Wall Creek producers were later junked and plugged at a loss of millions of dollars. No deep test has ever been drilled at Teapot Dome, which has gone through two World wars without justifying its existence as a naval reserve.

While certain experts in the U. S. G. S., and other authorities incline to the belief that most of Teapot's reserves have been drained away by Wall Creek sand producers in the big Salt Creek field to the north, Col. Kotick holds to the opinion that the only sure way to determine the value of the reserve is to drill a deep test. "Oil is where you find it," said the colonel, who formerly was associated with Tide Water Associated Oil Co., in California, and is now second-in-command of the naval petroleum reserves.

"The final decision to drill the deep test," he added, "will rest with congress. And with an economy-minded congress, the outlook is still uncertain."

Prospects for production of reserves at Teapot Dome looked more encouraging following the success of Amerada Petroleum Corp., in establishing a small field in the Dakota sandstone formation at Sage Spring Creek, 20 miles to the southeast. The discovery well was completed for 135 barrels 35 gravity oil per day on the pump, a second well is being tested for somewhat better production, and a third well has commenced drilling—all in section 30-37n-77w, Natrona county.

Shooting of the Teapot Dome structure was in charge of A. G. Morton, party chief for National Geophysical and a native Britisher.

The structure takes its name from a rock outcropping north of Casper which resembles a giant teapot with a broken spout.

Successful exploration work along the west side of the Powder River Basin during the past two years has stimulated interest in the Teapot structure, which has lain dormant for a quarter-century following its eminence in the national news under the Harding administration.

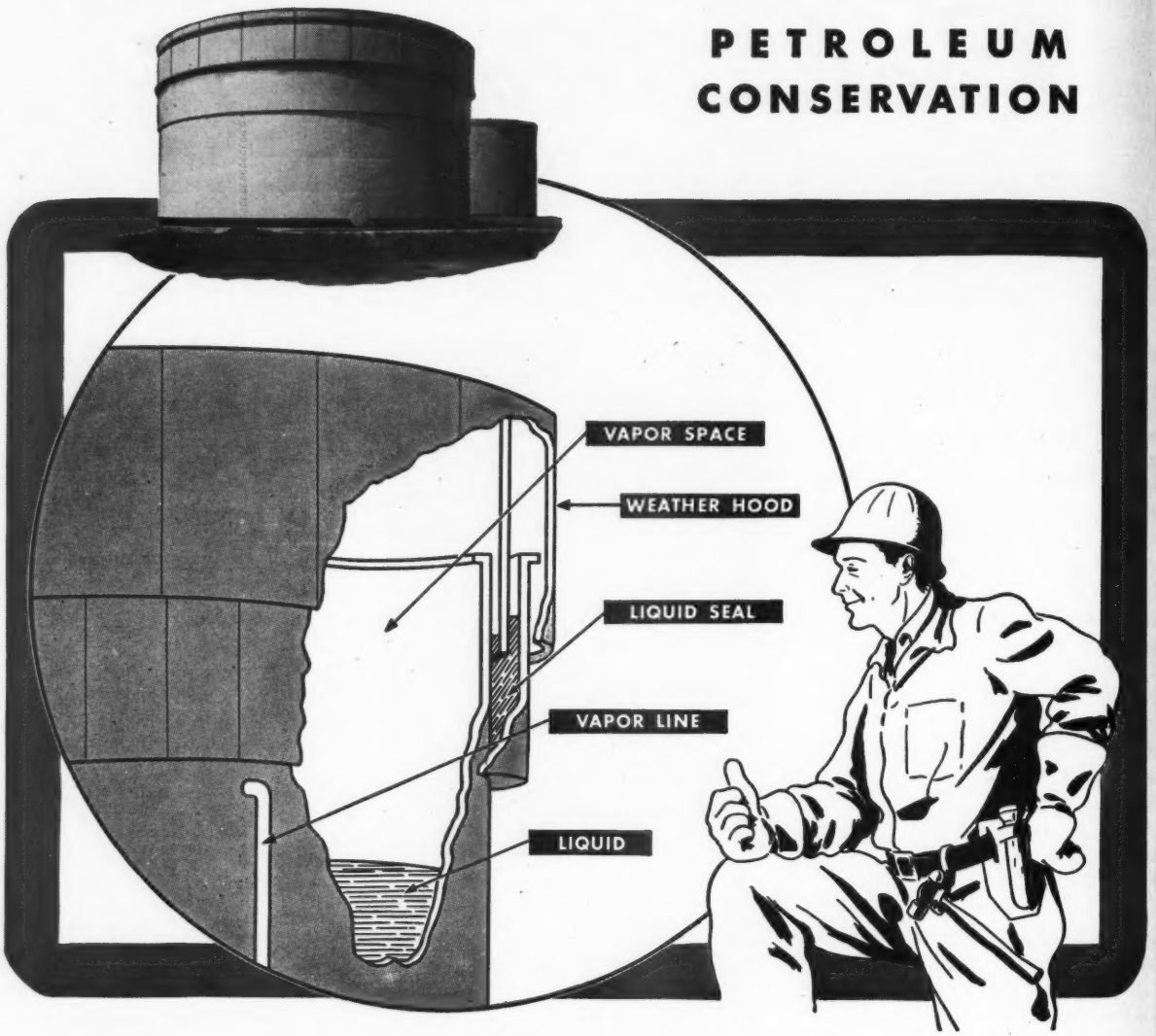
The big Salt Creek field, once the largest light oil field in the Rocky mountain region, is still producing better than 10,000 barrels daily of light crude, and is exceeded only by Elk Basin in Wyoming and Rangely, Colo., in production figures.

Continental Oil Co. has developed a promising field at Taylor Sussex, 18 miles north of Salt Creek in Johnson county, where location has just been staked for a 10th well, and first steps have been taken to lay a pipe line connecting with the Salt Creek line. A recent completion in the Shannon sand, No. 7, was good for 175 barrels per day of high gravity, light crude. There are five Lakota sand and two Shannon sand producers in the new field.

A few miles east of the Salt

E. R. Atwill has been appointed Union Oil Company's Manager, Rocky Mountain Division, with headquarters in Laramie, Wyoming, effective October 1, 1949. A. C. Rubel, Vice-President in charge of Exploration and Production, announced recently.
Mr. Atwill joined Union Oil's geologic department in 1926 as a field assistant in Los Angeles. He held various jobs in the geological department in Santa Paula and Bakersfield, becoming Division Geologist at Bakersfield in 1935. In 1938, Mr Atwill became a Research Geologist at Los Angeles and Chief Research Geologist in 1944. He was named Assistant Chief Geologist in 1949.
Mr. Max Krueger, Manager of Operations, Rocky Mountain Division, is resigning as of November 15, 1949.

PETROLEUM CONSERVATION



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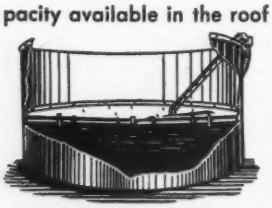

FLOATING ROOF TANKS

The savings the Expansion Roof makes are NOT based on vapor conservation ALONE. Elimination of maintenance costs, too, is important when considering petroleum storage equipment.

The Expansion Roof has cut maintenance to a point where nothing more than periodic painting, the same that ANY steel plate structure requires, is all that's called for. Simplicity of construction is the reason... no counterweight system or other complicated devices to fail, wear out or require maintenance. All adjustments are easily made from the outside of the tank.

For complete product protection in any climate... in single or multiple tank installations (through manifolding)... specify the Expansion Roof. Stop breathing and filling losses and at the same time cut your maintenance costs.

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Creek field, Keniland Oil & Gas Co., a privately-held New York corporation, has staked location for a 7,000-foot test in section 15-40n-78w. The well is located on a 12,000-acre block assembled by Lowell H. Pearson, former Conoco geologist, who has an approximate 25 per cent interest in Keniland. The play is based on stratigraphic trap possibilities.

Another major development in the West Powder River Basin trend is Phillips Petroleum Co.'s new South Cole Creek field in Converse county, east of Casper, where the third extension well was completed early in October for a gauge of 505 barrels 36 gravity oil daily, thru ¾ inch choke, from Lakota.

The south end of the Powder River Basin, in Converse county, is due for a new wave of wildcatting activity. Steelco Drilling Co., of Houston has set up a jack-knife derrick just north of the town of Glenrock, in 33-34n-75w, where a 5,000-foot Frontier test or deeper is planned. All surrounding acreage is held by Phillips, and even town lots in Glenrock have been leased for $2 to $3 each. The town is naturally seething with oil excitement.

Another active lease play has been reported north and west of Douglas, the Converse county seat. Continental, Phillips and others have completed seismic work in the area, and several lease brokers are busy checking on fee land.

Completion of the new eight-inch pipeline from the Mush Creek-Fiddler Creek-Skull Creek fields of Weston county, in northeastern Wyoming, to connect with the Rocky Mountain Pipe Line Co. station at Lance Creek has stimulated drilling activities in this section.

Recent completions in the West Fiddler-Hay Creek area have been as high as 3,000 barrels of oil daily, and every week brings from eight to 10 new locations for wells.

Production in the three Weston county fields is estimated at around 6,000 barrels daily, with an additional 6,000 barrels shut in at the wells.

The new pipeline has a capacity of 20,000 barrels daily, and should take care of the requirements of the Northeast Powder River Basin for some years to come. Initially, the bulk of oil moving in the new pipeline was consigned to the Consumers' Co-Operative refinery at Scottsbluff and Denver refineries. The new tie-in also provides a pipeline route to Chadron, Casper and Cheyenne.

L. N. Waterfall, Union Oil Company's Chief Geologist, Pacific Coast, is resigning as of November 1, 1949, to enter geological consulting practice, A. C. Rubel, Vice-President in charge of Exploration and Production, announced recently. Mr. Waterfall first joined Union Oil in 1923 at Casper, Wyoming, but resigned to complete his studies. After rejoining the Company, Mr. Waterfall served as a geologist in Canada, California and Venezuela. He was appointed Assistant Chief Geologist in 1937, and Chief Geologist, Pacific Coast, in 1944.

Before the advent of the pipeline, crude from the fields was trucked to Lance Creek or moved by a shorter pipeline to Newcastle for refining in two small plants there.

Current posted price for the 38-42 gravity crude is $2.65 per barrel. Tariffs for the pipeline are: Skull Creek to Mush Creek, 4 cents; Mush Creek to Lance Creek 20 cents, Fiddler Creek to Mush Creek, 5 cents a barrel, plus a gathering charge of 5 cents a barrel in the field.

Wyoming's latest new field discovery was made by Farmers' Union Central Exchange of St. Paul, whose No. 1 Shad at Murphy Dome in Hot Springs county (6-43n-91w) tested an intial potential of nearly 1,000 barrels of 45 gravity oil per day from the Tensleep sand. The operator reported a 200-foot pay section in the Tensleep sand, below 4355 feet, and is drilling ahead to check on Madison lime before completion. Murphy Dome is about two and a half miles northeast of Lake Creek, where Barnsdall and Sohio have established Tensleep production.

Several interesting wildcats are scheduled for drilling in the last quarter of the year. Amerada Petroleum Corp. has announced drilling at the Bertha Unit in Campbell county, where a 6,500-foot test is planned in section 23-53n-69w. The same firm wll test East Adon in 14-52n-69w, Campbell county — another 6500-ft. test.

The Texas Co. has staked location for a venture in the Stroner unit, 24-55n-68w, Crook county. Atlantic Refining & J. M. Huber Corp. will drill the first offset to Atlantic's recent 300-barrel discovery at Lightning Creek, east of the Lance Creek field in Niobrara county. General Petroleum is moving in rotary for an 8900-ft. test at North La Barge, in 4-27n-113w, Sweetwater county.

Superior and Bay Petroleum of Denver are negotiating for a farmout of the Wallace Creek structure in western Natrona county, which looms as another important Wind River Basin test.

Pure Oil Co. is drilling below 10,000 feet, probably in upper Mesa Verde, at the deep Badwater venture in northwestern Natrona county. Some excitement followed reports of an oil show in a thin stringer of sand in either basal Tertiary or upper Mesa Verde.

British-American found the Frontier sand hard and tight at the deep Whiskey Peak venture in southern Fremont county, now drilling below 12,750 feet and nearing the next objective in Muddy sand. The test in section 33-27n-91w may go as deep as 14,000 feet.

A brief glance at some other sub-12,000 foot tests in Wyoming:

Stanolind has recovered stuck drill pipe from its Canyon Creek venture in Sweetwater county, and run 7-inch pipe almost to the total

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depth of 12,759 feet. No shows were found in Frontier sand at 12,715 feet, and the operator has started deepening operations. Next target is Dakota.

At Reno Hill, in Johnson county, Amerada was last reported drilling below 12,500 feet wth the top of Frontier formation expected with each turn of the bit. No shows have been reported.

Joe Bridwell and Seaboard are coring below 9840 feet in the important Laramie county test at Meadow, north of Cheyenne, after finding the Frontier sand dry.

As the first week in October ended, several operators in Wyoming were beset with water difficulties. Seaboard struck large flows of water in the Tensleep sand in two development wells in the new Silver Tip field in Park county. Carter Oil Co.'s Leucite Hills prospect in Sweetwater county was written off as a dry hole after testing 3700 feet of salt water in the Nugget sand.

Drilling came to an end in Jackson Hole before the first snows when George C. Travis abandoned his cable tool operation in the Ram's Horn area at a depth of 590 feet, with collapsed casing in the hole. Earlier the well attracted attention when it struck a flow of nitrogen gas estimated at 4,500,000 cubic feet per day—first thought to be helium.

Nebraska

An abundance of fresh water had put the damper on rank wildcatting in western Nebraska early in October, but failed to discourage altogether leasing and exploration activities. With two producers (both of those Ohio Oil) and seven failures to date, the accent was on cautious appraisement of drilling prospects in the future.

Even Ohio was beset with water difficulties in the first and only oil pool discovered to date in western Nebraska—the Gurley field near Sidney. Both the John Caywood and Ralph Stevens wells, close offsets to the discovery, tested water and were temporarily abandoned. Efforts are still being made to shut off a water zone in the W. T. Knievel well, a north extension.

Roberts Bros. of Shreveport found water in the No. 1 Elsasser near the town of Sidney. Frontier Refining Co. of Cheyenne and Kimball Development Co. of Ogallala likewise turned up failures.

Nevertheless the lease play generated by Ohio's discovery well last summer is attracting newcomers to western Nebraska. Magnolia Petroleum Co. has assembled a block in southwestern Kimball county and is developing a checkerboard play in Garden and Deuel counties. Leasing has also been reported in a southeast trend thru Perkins, Chase and Dundy counties, with some acreage picked up by Ohio in Cheyenne county, Kansas, and Phillips county, Colo.

Announcement of a new wildcat was made by Walter Miracle of Casper, head of Ideal Drilling Co., which completed a "dry hole" for Frontier Refining near Sidney recently. The new venture, No. 1 Bosley in section 19-13n-42w, will test Dakota around 4,000 feet. It will be the first test in the Big Springs area in Deuel county, where a 20,000 acre block was gotten together by C. D. Edmonson and S. C. McGhee, Denver independents.

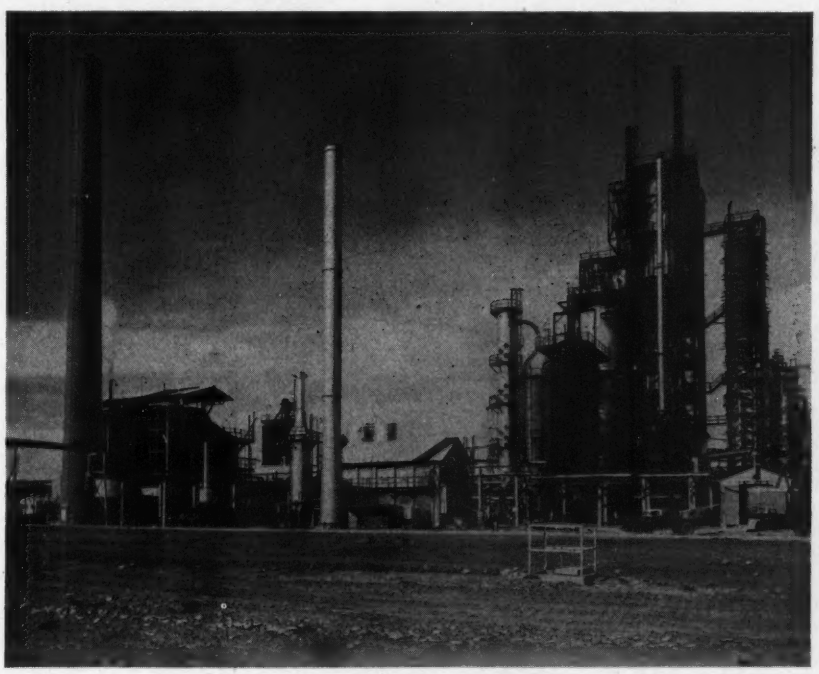
Colorado

One of the most significant wildcat tests drilling in Colorado is Pure Oil Co.'s No. 1 unit (14-46n-13w) on the Horsefly structure in Montrose county. Now drilling around 4300 feet and reportedly near granite, this "tight hole" venture is expected to have an important bearing on possibilities along the northeast side of the extensive Salt Basin.

Some time ago the Horsefly test reported oil saturation between 1400-2000 feet, and if no commercial shows are found in deeper zones it is probable that the operator will plug back for retesting.

Northwest of the Horsefly Unit, Continental, Lion Oil Co. and J. M. Huber are completing unitization of the Nucla area in twp. 47n-15w, and plan a wildcat test in the near future. Continental controls about 65 per cent of the unit area, Huber 15 per cent and Lion 20 per cent, with Byrd-Frost, Inc., of Dallas also having an interest.

General Petroleum has completed its first extension test in the Pagoda anticline in 34-4n-89w, Routt county, for 1,930,000 cubic feet of gas



Partial view of Continental Oil Company's new $9,500,000 refinery at Billings, Mont., opened Saturday, Oct. 8, with an open house and buffet luncheon, to which the public was invited. Gov. John W. Bonner, of Montana, was the principal speaker. The new refinery is Continental's northernmost plant and its largest in the Rocky Mountain states. In the view above, left to right, are seen the boiler plant and stack, the crude furnace unit and tower and, the backbone of the refinery, the main catalytic cracking structure.

Who gets most of our customer's dollar?

1. The owners? No. Last year, Union Oil's stockholders got 10 million dollars in dividends from the company's operations. Divided among 36,120 preferred and common stockholders, this amounted to an average of $278 per owner.

2. The employees? Guess again. Union Oil's employees got 34¼ million dollars in salaries, wages and benefits out of the money the company took in. Divided among our employees, this amounted to an average of $4,600 apiece.

3. The tax collector? Right. Federal, State and other governmental agencies collected almost 47 million dollars from the money Union Oil Company took in during 1948—4 times as much as the owners got, 1/3 more than the employees got.

4. In the last analysis... that money was *yours*, not ours. For gasoline taxes alone added 25% to 40% to the price of Union Oil's 76 gasoline—depending on the tax rate in the community where you bought it. Wiping out all the profits paid to Union Oil owners in dividends, on the other hand, would have lowered the price of our petroleum products only ½¢ per gallon.

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OCTOBER 17, 1890

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daily from the Shinarump formation. The company made its Shinarump gas discovery in the field last year. It is anticipated sufficient gas production will be developed to warrant a pipeline from the new field to serve the big market in northern Colorado.

An old Ohio Oil Co. wildcat in the Hardin area of Weld county which caught the spotlight when oil was found at the surface of the abandoned hole has been completed as a small producer. R. S. Shannon, Jr., and W. J. Quinland, associated with Pioneer Oil Co., of Denver, cleaned out and tested the abandoned well in 20-5n-63w, 12 miles southeast of Greeley. On a five-day swab test, the well recovered between five and eight barrels of oil daily, and has been put on the pump. It was originally drilled to a total depth of 7987 in the Red Beds in 1943.

Around the state: Water was found in the Sundance at the Pitts, Colo., wildcat at Coles Dome in Moffat county recently. The Utah Vernal wildcat at Iron Springs in Moffat county logged gas shows in thin sands of the Wasatch formation and is now drilling below 3900 feet. U. P. Harris and H. S. White are reported preparing to deepen their wildcat at Harvey Gap in Garfield county, which was suspended at 1305 feet in 1947.

Personalities

Argo Oil Corp. has centered its land and geological office for the Rocky mountain area in Casper, while the production office is maintained in Denver. A. M. Culver is in charge of the land department, while John W. Harrison, geologist, has been transferred from San Antonio to Casper.

R. R. (Dick) Ullstrom, new general superintendent in charge of production, maintains his office in the Colorado capital.

The changes were announced following the retirement recently of Martin T. Rathvon, formerly vice president in charge of production.

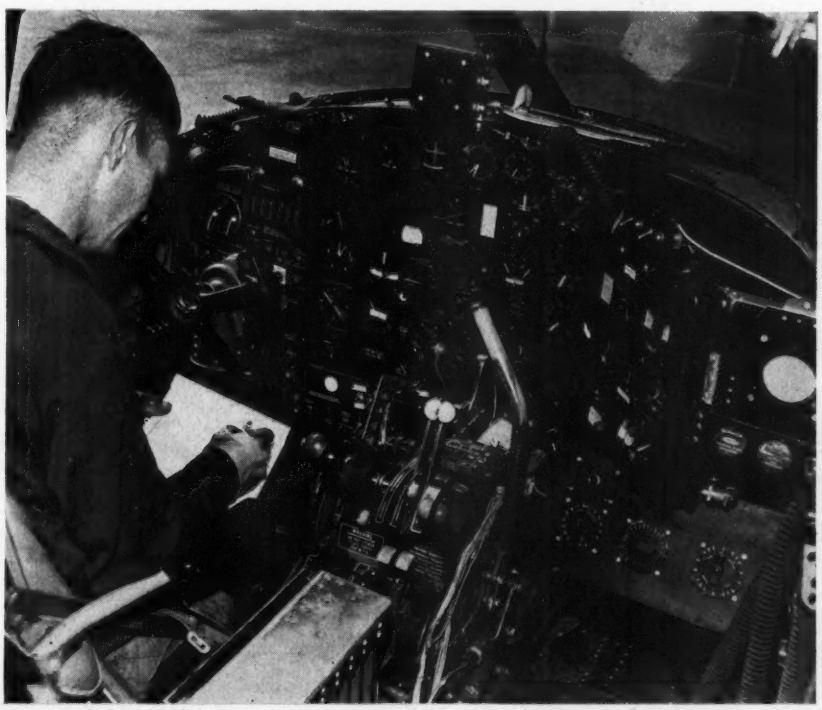
Plans for the annual membership meeting of the Rocky Mountain Oil and Gas Association (RMOGA) in Denver are being completed by President Glenn E. Nielson. The meeting will be held at the Cosmopolitan Hotel Nov. 17 thru 19. Reservations may be made thru Frank C. Fogarty, executive secretary at Casper, or the Denver Convention and Visitors Bureau.

An interesting address on correlation and interpretation of radioactive logs was given by Charles Ohl, representative of Lane Wells Co., before the first fall meetng of the Wyoming Geological association in Casper Oct. 3. Two years before Mr. Ohl had discussed the same subject at a meeting of the group. In his new paper, he discussed additional refinements in interpretation which have been made in the past two years.

William Dancer, landman for Pure Oil Co., has opened a new office in the Chamber of Commerce building, Denver, to handle activities in eastern Colorado, southeastern Wyoming and Nebraska for the firm. Activities in the Denver office came under the direction of the company's Tulsa division, and are not channeled through the Rocky mountain division office in Billings. Frank Gorham is the geologist at Denver. Another geological office is maintained at Casper.

Max L. Krueger, Rocky mountain division manager for Union Oil Co. of California, will leave his post Nov. 15 to take the position of vice president in charge of exploration with Conorado Petroleum Corp. (foreign exploration combine for Continental, Amerada, Ohio Oil). He will headquarter in New York City. E. R. Atwell, formerly assistant chief geologist of Union's Pacific Coast division at Los Angeles, has been named division manager for the company's Rocky mountain operations. Mr. Krueger is well-known throughout the Rocky mountain and Pacific coast areas.

Division offices of Union Oil of California will be moved from Laramie, Wyo., to Denver in the near future.



Everything is under controll—in the first plane equipped for jet research ever owned by an oil company. Recently acquired by Shell, this twin engine plane has a jet engine specially mounted in the fuselage as well as reciprocating engines in the wings. Elaborate analytical and recording instruments in the cockpit permit tests during actual flight of fuels and lubricants for both types of engines. The center panel holds conventional twin engine instruments. Jet engine instruments are right center, and at far right is an engine-analyzer oscilloscope with controls mounted below.

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wear resistance.

tear resistance.

a clean string of pipe!

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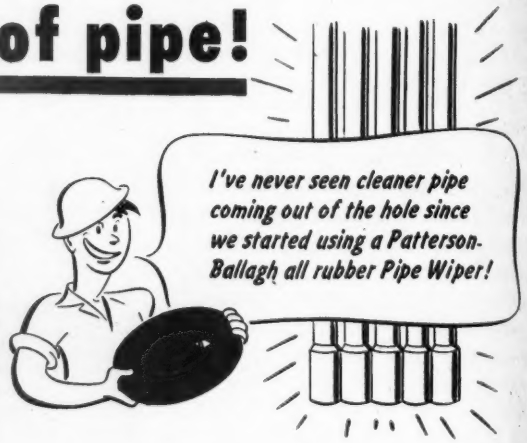

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General

Widely circulated reports that shows of oil were found in the top of the Devonian, around 5760 feet, at the Continental-Pure stratigraphic test 20 miles northeast of Bismark, N. D., caught the attention of oil men in the Rocky mountain states early in October.

If confirmed, the discovery might well mean an extension south of the international boundary of lush Devonian production in western Canada. No information of any kind has been released by Continental or Pure concerning the test, which is located in section 6-140n-77w, Burleigh county. But close observors who have been assigned to keep an eye on the test report the operator has been circulating mud for several days with the well 10 feet into Devonian.

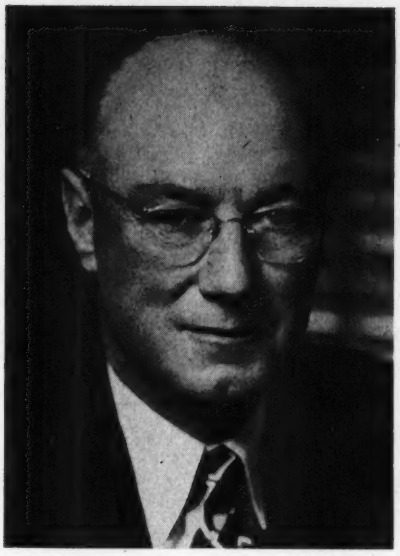
Earlier reports credited the well with a slight show in the Madison lime, which did not materialize on drill stem tests.

The well is said to be the first of a series to be drilled by Continental and Pure on their 1,500,000 acres of leases in Burleigh, Sheridan and Emmons counties. The lease play snowballed across the Williston Basin of North Dakota and Montana and extended across the line into Manitoba and Saskatchewan provinces of Canada, taking in an estimated eight million acres in all.

Another strat test has been started by Union Oil Co. of California, Hancock Oil Co. and Signal Oil Co., in the Devil's Lake area, Ramsey county, North Dakota. Other major operators, such as Stanolind, Carter and Superior, are expected to drill tests in this new geological province in the coming year.

A leveling off of drilling activities in the Rocky mountain region is reflected in statistics reported at the start of October. A total of 200 active wells were reported drilling in Wyoming, Colorado, Montana and other Rocky mountain states at this time, compared to 276 active wells a year ago.

Locations for wells, however, were nearly on a par with that of a year ago. A total of 57 locations are listed as of Oct. 1, compared to 63 the year before.



E. B. Noble has been appointed Union Oil Company's General Manager for Canada, effective October 1, 1949, and will be responsible for all exploration and development operations north of the International Line. A. C. Rubel, Vice-President in charge of Exploration and Production, announced recently. Mr. Noble previously had been the Company's Manager of Exploration. Mr. Noble joined Union Oil in 1923 as a Scout in the San Joaquin Valley Division after having served with various companies in Chile and Mexico, as well as Texas, Louisiana and California. Mr. Noble became Division Geologist in 1924; Assistant Chief Geologist in 1929; Assistant Manager of Exploration in 1936; Chief Geologist in 1937; and Manager of Exploration in 1944. Mr. Noble is a Past President and a member of the Executive Committee of the American Association of Petroleum Geologists.

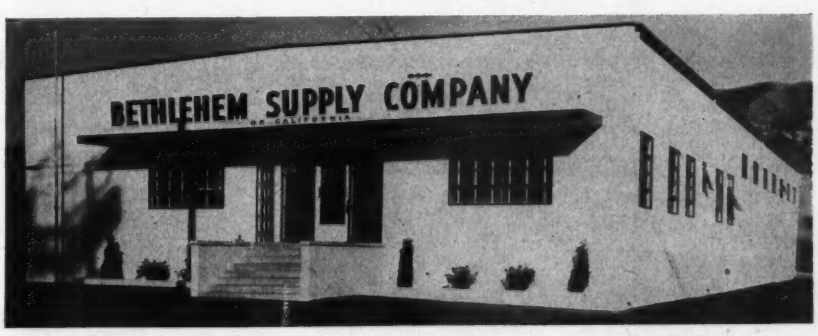
Leasing activity continued to increase throughout 1949, spreading to new geological basins in North and South Dakota, western Nebraska, Utah and even eastern Nevada.

Exploration activity maintained a brisk pace throughout the year, and seismograph supply houses reported even greater business than in 1948. Salesmen for these firms had to travel further, though, to contact crews working in North Dakota, northern Montana, western Nebraska and the other new areas.

With the vast amount of leasing and exploration data accumulated since the war, the prospect for continued drilling for new reserves for several years ahead appears to be assured. Supply and service firms are expanding their facilities in Casper, Denver, Billings and elsewhere to meet the needs of the industry.

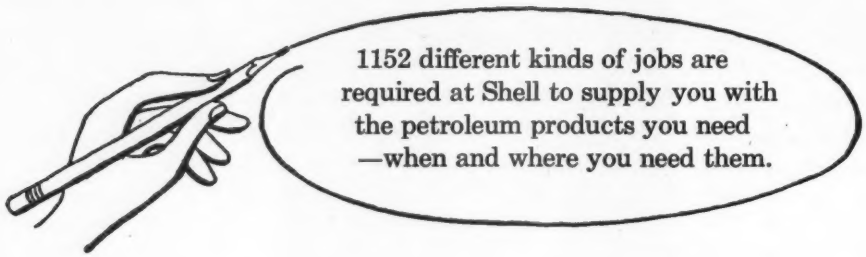
Only in development drilling of proven black oil fields has there been a marked decline. The market for heavy black crudes is expected to improve gradually with further advances in refining techniques and a better job of selling consumers on conversion to oil space heaters, coupled with continued dieselization of the railroads.

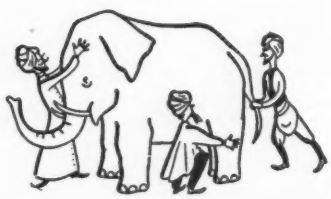
YOU HAVE TO BE BEST TO BE FIRST AND CALIFORNIA OIL WORLD IS THE FIRST IN THE WEST.



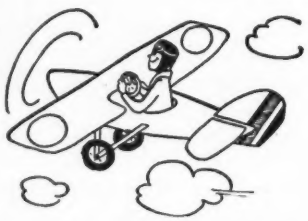
Another milestone in 27 years of continuing growth and improvement was recently marked by Bethlehem Supply Company of California when the Company held open house for oil men at their new field store at Ventura. 1500 people representing petroleum and allied industries dropped in to see the new store, meet their friends, and enjoy a typical oil field buffet.
Covering 7200 ft. of floor space and providing ample paved parking and outside storage area, the Ventura store is the newest of ten operated by the Company in the major California oil fields. In addition to these field stores, Bethlehem Supply maintains warehouses at San Francisco and Los Angeles, with general offices of the Company located at Los Angeles.

What is an "oil man"?

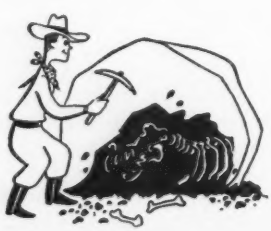

1152 different kinds of jobs are required at Shell to supply you with the petroleum products you need —when and where you need them.



A wall, a tree, a rope, sums up the story of three blind Hindus who tried to "see" an elephant by touch. One felt its side, and said "A wall." One touched a leg and said, "A tree"... and one thought its tail a rope. Most of us, touching petroleum at a few spots, have only a limited picture of an "oil man."



Go as high as you like — Among Shell's oil men are pilots who inspect pipelines quickly and efficiently from the air. They, like Shell accountants, machinists, salesmen, clerks, are encouraged to study the job "just ahead," and be ready to advance to better positions when opportunity comes.



Here's your clue: Among the unusual jobs at Shell is that of *paleontologist*, involving study of fossil remains as clues to new oil fields. An "oil man" may be a chemist . . . a truck driver . . . a riveter . . . or a pretty secretary. But all are working to make the energy of oil more useful to more and more people.

You know this "oil man" best because he's the friendly service station dealer in your own neighborhood. He is your day-to-day contact with the oil business. Over 30,000 employees back him up at Shell—all "oil men," though they work at 1152 different kinds of jobs to serve you.

A forward-looking company serves all 4:

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Community
Employees
Shareholders

SHELL

SHELL OIL COMPANY
INCORPORATED

Field Development

Los Angeles Basin

San Fernando Wildcat Spuds

No great distance from the corner of Woodley and Lassen streets in the San Fernando area, Standard of California is taking the first bites of ground with its Woo No. 1 wildcat well. In the Inglewood area, Standard's L.A.I. No. 4-3 in the vicinity of La Tijera and Centinela boulevards is redrilling at 9480 ft. The well went on the first drill to 9628 ft.

Athens Well New Producer

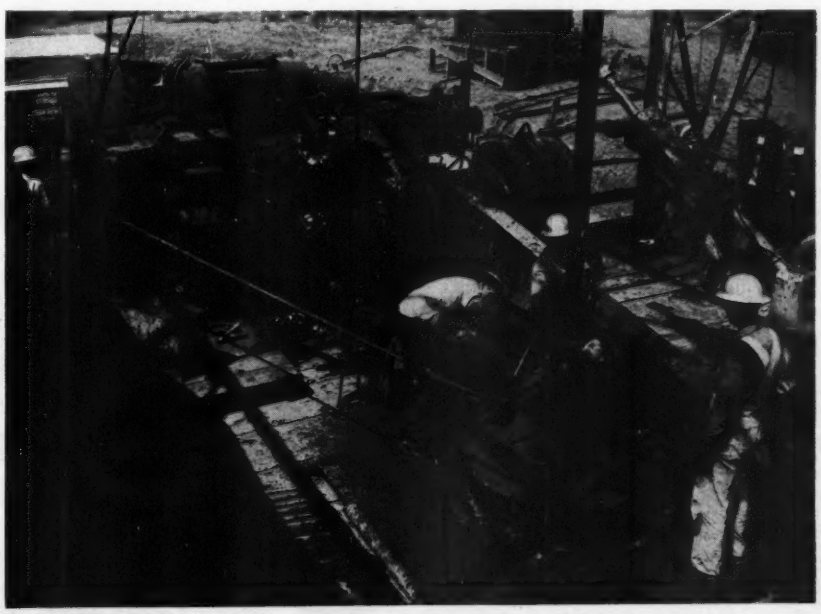
Flowing through casing at the rate of 300 barrels of 32.1 gravity oil daily was the last word from Shell Oil's Moser Community No. 2 on Sec. 12-3s-14w in the Athens-Rosecrans area. The well bottomed at 9000 ft., after encounter with the O'Dea zone at 8047 ft. The company's Howard Community No. 1-4 on the section is digging at 2421 ft. On Sec. 20-3s-13w Transcal Drilling Company is sidetracking its Brownstein No. 1, after drilling originally to 5230 ft. It was sidetracked at 4705 ft. Union Oil's Howard Park No. 42 on Sec. 18-3s-13w, following recompletion at a plugged depth of 6145 ft. is putting out 210 barrels of oil and 270,000 cubic ft. of gas daily. Wolfe No. 1 on Sec. 20-3s-13w also a Union enterprise, has gone on the pump for an unestimated yield, following a flow of 103 barrels daily through casing. Total depth is 8825 ft.

Inglewood Well Idle

Following swabbing operations of several days duration, Shell Oil's Baldwin Hills Community No. 1 at East Inglewood on Sec. 9-2s-14w near the shopping district on Crenshaw boulevard is idle at 13,509 ft. Casing is set at 11,726 ft.

Placerita Lively Area

Bysshe & Barratt, who recently completed their Yager No. 1 in the Placerita field, is drilling its Yager No. 2 there at 900 ft. on Sec. 31-4n-15w. The No. 1 came in for an estimated 2000 barrels a day of 25 gravity crude oil. The well bottomed at 1800 ft., with some 300 ft. of oil sand on the log. The company plans a total of 10 wells on the lease. Bysshe & Barratt has also started Baum No. 1 on the same section. Atlantic Oil's Klukas No. 1 has been spudded and is drilling ahead. General Petroleum's Orwig No. 7 has finished, with oil climbing from 1825 ft. at the rate of 141 barrels daily. Two drilling jobs have been started in the area by Gordon Oil Company. They are Peggy Moore No. 7 and Wickham-Ferrier No. 7. Rothschild Oil, a prime and substantial developer in the field, has no less than six wells going at various operational stages. Serago Oil's Allison No. 1 is drilling at 752 ft. The company's Yager Community No. 1 on Sec. 30-4n-15w went to 3338 ft. without production success and has been abandoned. Independent Exploration's drilling program on Sec. 30-4n-15w includes three wells working at different points.



In the Montebello field at Standard Oil Company's well Scott No. 2-1, Jack Gordon, derrick; Harland B. White, helper; G. H. Olson, helper, N. E. Ratliff, relief driller at brake.

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Del Valle Try Drills

Wildcat ground southeast of the Del Valle field is the scene of Humble Oil & Refining's N.L. & F. No. 1 drilling at 8950 ft. on Sec. 23-4n-17w, Los Angeles County. St. Helen Petroleum's Ladd No. 1 on Sec. 7-4n-17w is making hole at 3225 ft.

Signal Hill Rezoning Due

Property owners at California and Wardlow streets at Signal Hill are considering a request to the city council for spot zoning to allow drilling of an oil well there. The spudding recently of a drilling job at 36th and Lime streets apparently has brought about new development interest in the area. A structural displacement travels through near this location and production north of the fault is held possible by many geologists. Interest of residents in oil development on the north side of Signal Hill is attested by the fact that most all ground south of Wardlow is now under lease.

Orange County Wildcat Quits

Independent Exploration prospect drilled to 1376 ft. before writing off its Irvine No. 1 on Section 23-6s-10w at Newport in Orange County. Barnsdall Oil's Emery Trust No. 1, a deep test on Sec. 25-3s-11w in the West Coyote field, is still working on a fishing job. Present depth of the hole is 10,750 ft.

Del Valle Wells Dig

Drilling has passed the 6200-ft. mark and tools are going on down in the R. E. Havenstrite, Operator, Lincoln No. 16 in the Del Valle field on Sec. 16-4n-17w. California Standard's Sepulveda No. 16 is making hole ahead at 1840 ft. on Sec. 8-4n-17w.

Bernardino Area Active

Allied Oil & Gas Corporation is ready to deepen its Moore No. 1 in Lucerne Valley near Victorville on Sec. 17-4n-1w, San Bernardino County. The venture was given up two years ago at 1766 ft. and a return visit probably was inspired by a desire to check commercial gas possibilities. Company holdings embrace 1600 acres. In Victorville, A. C. Anderson's Black Butte No. 1 on Sec. 26-2n-7w is drilling at 1700 ft. Western Research Corporation's Yucca No. 1 on Sec. 1-3n-7w is drilling at 703 ft.

Santa Fe Well Digs

Drilling at a relatively shallow level is General Petroleum's S.F. No. 29 on Sec. 5-3s-11w in the 30-year-old Santa Fe Springs field. Union Oil's Bell-Alexander No. 3 on Sec. 6-3s-11w is down 4080 ft. and washing over fish at 3310 ft. Bell No. 107 in the section is coring and drilling ahead at 13,000 ft. Bell No. 106 is a location on Sec. 31-3s-11w.

West Newport Job Abandoned

Alford No. 4 well, sponsored by D. D. Dunlap on Sec. 18-6s-10w at West Newport, has been abandoned as a production failure. Drilling stopped at a total depth of 5228 ft.

Signal Hill Well Finaled

Max Pray and Fred Morgan have completed their A. S. Johnston No. A-2 on Sec. 24-4s-13w at Signal Hill. The project was carried to a total depth of 11,734 ft .and subsequently plugged back to 10,702. As this is written, the well is flowing by heads at a rate estimated at 100 barrels a day. The 7-in. casing is set at 11,025 ft. Hancock Oil's Community No. 4-1 on Sec. 13-4s-13w has reached 10,150 ft.

Richfield Well Quits

At Richfield in Orange County, Union Oil has pulled out of its Thompson No. 1 on Sec. 21-3s-9w. Drilled to a total bottom of 4667 ft. and eventually plugged back to 2885 ft., the well showed nothing commercial when put through normal trials.

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Coastal and Northern District

Hancock Takes Alameda Leases

Hancock Oil Company has leased from Pacific Coast Aggregates of San Francisco more than 1200 acres of land lying between Livermore and Pleasanton in Alameda County. The ground is adjacent to Pacific Coast Aggregates Eliot plant, where activities will continue unaffected by any oil development operations carried on by Hancock.

Bryson Test Still Location

Still a location is Standard of California's Sproule No. 1 test in the Bryson area of Contra Costa County. Drill site is 400 ft. due east of the center of Sec. 14-1s-3e.

Lake County Venture Idle

In the Kelseyville area of Lake County, William T. McKenzie's Evelyn Awe No. 1 is idle at 375 ft. on Sec. 28-13n-9w. Probable future course of the project has not been officially disclosed.

Monterey Try Drills

Near the town of Monterey in Monterey County, John Stephen Horn's No. 1 is drilling at 1900 ft. in Sec. 35-15s-1e. Location is in the vicinity of the famed Noche Buena and Saucito Ranchos.

San Luis Obispo Active County

Petroleum Holding Corporation is engaged in cleanout operations with its Pago Grande No. 1 near Atascadero in San Luis Obispo County preparatory to deepening the hole from present depth of 1954 ft. Derrick stands 660 ft. west from the east quarter corner of Sec. 2-29s-12e. C.C.M.O. Company's Paso Robles wildcat, Peterson No. 1 on Sec. 11-27s-13e, is drilling at 910 ft. Mar-Roo Syndicate, meanwhile, is rigging Lampman No. 1 on Sec. 36-28s-12e. In the Crocker Flats area, Continental Oil is making hole at 6412 ft. with Munsey U.S.L. No. 1 on Sec. 4-32s-22e.

Rio Vista Well Flows

Amerada Petroleum has completed N. Hamilton No. 3 on Sec. 36-4n-2e at Rio Vista for 4,940,000 cubic ft. of natural gas daily. Total depth is 5467 ft., with top Emigh at 4090 ft., top Capay shale at 4368 ft. and top Hamilton sand at 5332 ft.

Arroyo Try Digs

In the Arroyo Grande area, San Luis Obispo County, the C. W. Colgrove Patchett No. 45-33 on Sec. 33-31s-13e is drilling at 4206 ft. Pricco No. 56-5 on Sec. 5-32s-13e is idle at 8258 ft.

San Marcos Test Drills

Prospect drilling is going forward at 3100 ft. in the Lewis W. Welch Welch-Janeway No. 1 exploratory well on Sec. 11-6n-29w in the San Marcos area, Santa Barbara County.

Fillmore Test Quits

Total depth is 3678 ft. in C. W. Colgrave's abandoned Bursin No. 46-18 in the Fillmore area, Sec. 18-4n-19w, Ventura County.

Tar Creek Well Good

Tar Creek No. 49 well has been finished by Union Oil Company in the Tar Creek area on Sec. 28-5n-19w. Yield is 75 barrels a day from a plugged depth of 653 ft. Total bottom is 673 ft. Tar Creek No. 51 on the section is drilling at 524 ft. No. 50 is a location.

South Mountain Wells Working

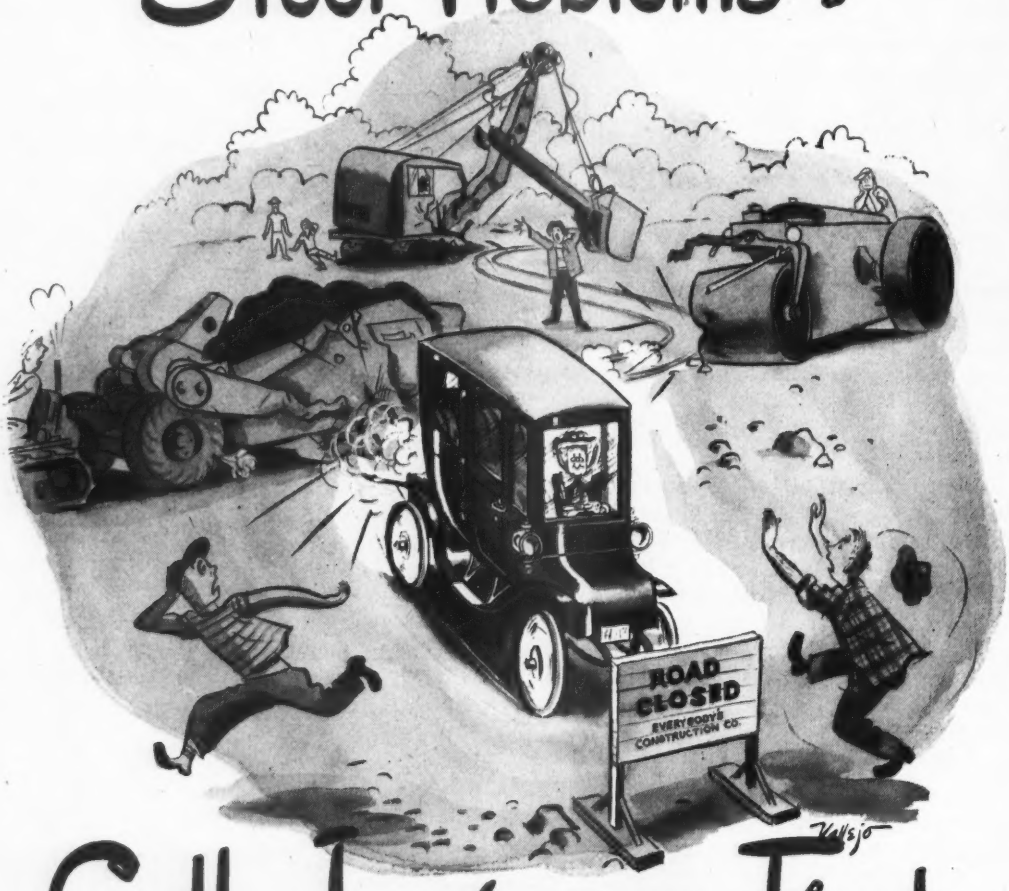
F. E. Fairfield's L. B. No. 4 on Sec. 20-3n-20w at South Mountain is drilling ahead with cable tools below 650 ft. No. 3 is drilling below 750 ft., after setting 14-in. pipe at 702 ft.

Casmalia Well Tests

Trials are being continued in Richfield Oil's Soladino No. 52 test well on Sec. 18-9n-34w in the Casmalia area, Santa Barbara County. Total depth is 6032 ft. The bottom of the well has been plugged off, with top of the cement at 4770 ft.

Golden Dome Oil Company's well No. 1 at Long Beach, left to right: M. B. Fisher, driller; W. B. Wynn, derrick; D. R. Perrine, rotary helper; C. W. Stanley, rotary helper; R. E. Fife, rotary helper, L. M. Maney, pusher. The dog in the picture is "Sonny Boy" who stays with the crew during complete drilling operation.

Steel Problems?



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Eureka Canyon Try Skids Rig

Thornbury Drilling Company has skidded rig from its Thornbury-Oceanic No. 1 to location on Sec. 33-4n-18w of No. 2, which is ready to drill. Casing collapsed in No. 1, after being cemented at 1680 ft. The new drilling job will test showings from above bottom at 1723 ft. in the first well. Drill site is on a spread of more than 2000 acres in which interest is divided by Thornbury and Oceanic Oil. W. H. Geis is Thornbury engineer and geologist.

Sespe Try Completed

In Ventura County at Sespe, Merchants Petroleum's Bonebrake No. 2 on Sec. 6-4n-19w has been completed at 2767 ft. Representative gauge is not yet available. V. W. Moulton is drilling at 1425 ft. with No. 1 at Sespe Creek in Sec. 17-5n-19w. Jergins Oil's Larinin No. 1 test in the Piru area in Sec. 24-4n-18w is down 6712 ft. and ready to be written off. Gene Reid Exploration's Dutton No. 1 on Sec. 28-8n-21w in Lockwood Valley stands suspended at 2500 ft.

Lion Mountain Wells Progress

Humble Oil's Berylwood Inv. Co. No. B-1 on Sec. 18-4n-22w in the Lion Mountain area is drilling at 1524 ft. Theo Hammon No. 2 on the section is digging at 484 ft.

Ventura Avenue Adds Producers

Tide Water Associated has added two new good producers in the Ventura Avenue field. The V. L. & W. came in from 11,580 ft. for 1000 barrels of oil and 934,000 cubic ft. of gas daily. No. 83 finished at 11,446 ft. for 1140 barrels of oil and 1,077,000 cubic ft. of gas a day. Lloyd Corporation is drilling Lloyd No. 32 on Sec. 24-3n-23w at 8456 ft. Its Lloyd No. 34 on the section is down 5824 ft. and drilling deeper. Shell Oil has 10 wells at various operational phases on its Edison, Hartman and Taylor properties.

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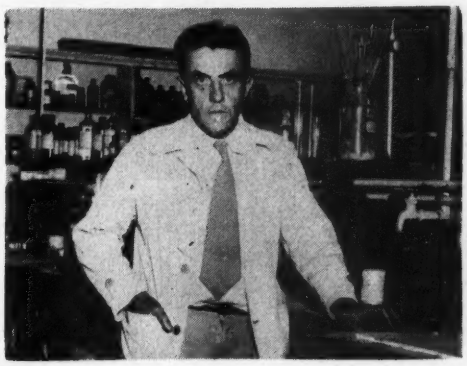

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Shiells Job Digs

Tools are below 6800 ft. with drilling continuing ahead in the Texas Company's Shiells No. 165 in Sec. 4-3n-19w in the Shiells Canyon area, Ventura County.

Bardsdale Well Drills

The drill is below 2000 ft. in San Amarion Oil's Elkins No. 5 at Bardsdale in Sec. 7-3n-19w. The company's Capital Crude No. 10 in the same section was last reported pumping wash oil from a finishing depth of 4418 ft.

Lompoc Well Rigs

Purisima No. 64, sponsored by Union Oil in the Lompoc field on Sec. 36-8n-34w, is rigging up to begin drilling.

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San Joaquin Valley

Tejon Well Interesting

Setting at rest any doubts as to the importance of the new Rose L. Bright well in the Reserve sector of the Tejon Ranch, the flow on a two-hour potential test was 453 barrels of 27.2 gravity oil a day through a 16/64-in. choke. Production finds it source from 38 ft. of zone in the overall interval of 4489-4538 ft. The well is down 4544 ft. with 6⅝-in. casing set on bottom. There are between 800 and 900 feet of oil sand behind pipe, which probably receive attention from wells following. Kemnitzer, Richards and Diepenbrock are company engineers and geologists. This group has regarded the area as favorable to oil production for more than 10 years. Performance of the Bright producer has obviously confirmed the opinion of these oil scientists. Location falls in Sec. 34-11n-19w. Charles Holmes is making hole at 700 ft. wth his No. G-1. In the north Tejon Hills, S. & M. Oil Company is drilling at 450 ft. in S. & M. No. 1 on Sec. 2-11-18w.

Salt Creek Well Yields

Present output of the Carneros Oil Company Anderson Community No. 4 on Sec. 19-29s-21e in the Salt Creek area is 180 barrels of clean 23.7 oil daily from 2420 ft.

Comanche Pt. Tests Failures

Two wildcat wells in the Comanche Point area of Kern County have been abandoned. Henry Lubking & Associates drilled to 2832 ft. with No. 3 on Sec. 36-32s-29e before quitting. Morton & Sons' Macoil No. 2 on Sec. 32-12n-18w gave up at 625 ft. in yellow claystone.

Fruitvale Innovation

After drilling not far below grass roots, Rocky Mountain Drilling Company is redesigning bit before going deeper with its Gopher No. 1 on Sec. 23-29s-27e in the Fruitvale area. The project, rather than looking for petroleum, is experimenting with a square oil well as a means of obtaining more footage without the necessity of changing bits. A square oil well in the past has often been referred to in the field as something akin to a left handed monkey wrench. Nevertheless, in this instance, Rocky Mountain's experiment is a serious undertaking and if deemed successful may result in important drilling changes in the industry. The bit is about 30 ft. long and it operates in a manner similar to the standard digger of ditches. It has a set of four chains which support small buckets running down the lengthy tool. These buckets grab the soil out as they progress. Motion in the chains is set up by revolving drill pipe which goes through a gear box mounted on top of the bit. The bit remains stationary and cuttings are carried out of the hole by the circulation of mud as in conventional operations. The square hole is called for by the bit which does not revolve with the drill pipe, but is held in position in order that the small cutters can scoop and accomplish the drilling.

Lost Hills Test Works

General Petroleum has reached 4415 feet with its Williamson No. 33-11 wildcat on Sec. 11-26s-20e in the Lost Hills area and has set 13⅜-in. casing.

Shale Hills Test Drills

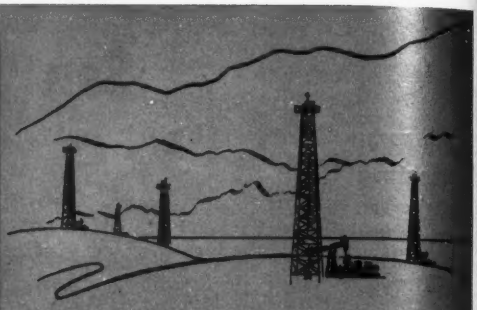
Universal Consolidated has spudded and is drilling at an inconclusive level with its Bramlette No. 1 test well on Sec. 34-26s-18e in the Shale Hills area of Kern County. Universal holds 280 acres surrounding the drill site. Adjacent ground is in the hands of Pacific Western, Signal, Superior, Ohio and others. They are understood to be contributing "dry hole" money to the play. About five miles north and east, the company is drilling at 5000 ft. with its Beer No. 1 on Sec. 9-25s-19e in the Blackwells Corner area.

Carrizo Try Digs

Independent Exploration's Gene Reid-Temblor-Rexroth No. 33-36 on the Carrizo Plains in Sec. 36-28s-18e continues to drill ahead below

In the Paloma area at Richfield Oil Corp.'s well, BVA No. 43-25, front row, kneeling, Paul Weller, rotary helper, James R. Johnson, Personnel Dept.; Monroe Coger, derrickman; rear row, standing, left to right: Jeff Dickson, derrickman; Fred Reimers, cathead; Fritz Cook, fireman; Ray Barker, tool pusher; Earl Leslie, driller.

Lufkin



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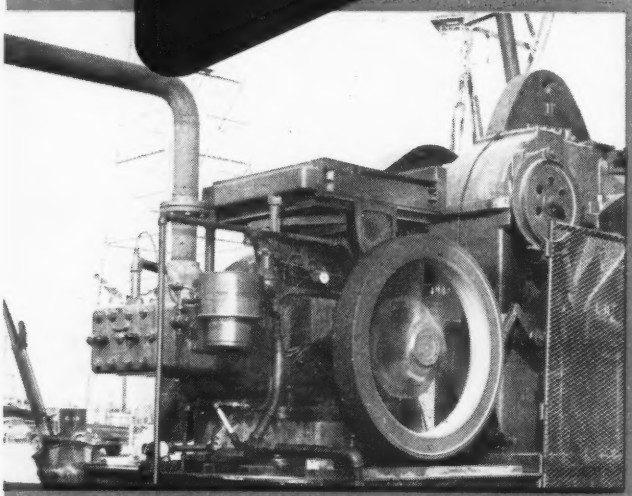

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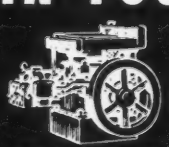
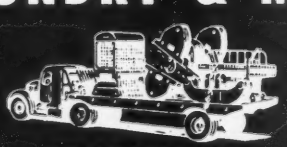


LUFKIN-COOPER-BESSEMER ENGINES



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3500 ft. The well is 50 ft. northeast of Gene Reid's Temblor No. 1, which has been converted to a water well. This earlier test found shows, but when put to trials failed to react in worthwhile fashion. Interest in this Carrizo Plains play is shared by Independent with Universal Consolidated.

Antelope Try Fails

In the Antelope Hills area, where Independent Exploration some months ago completed a gas well, the company has abandoned its Williamson No. 1 at 3066 ft. Drilled on Sec. 27-27s-18e, the project topped the Point of Rocks at 2870 ft.

Guijarral Well Good

Widening the Guijarral Hills field to the west and adding several new locations. R. S. Lytle, Operator, has completed No. 45-34F on Sec. 34-20s-16e for a flow estimated at 1200 barrels a day. The oil is clean and 38 gravity. Drilled to 8169 ft., casing is set on bottom. Top of perforations are in the Allison sand at 8074 ft. Base of the sand body is placed at 8164 ft. Interests of the operator in the immediate area cover some 400 acres, of which 320 acres are Government land, the balance privately owned.

Fresno County Tests Working

Barnsdall Oil's J.M. & R. No. 1-28 on Sec. 28-19s-16e at Amerada Nose in Fresno County is making steady progress with the drill at 8376 ft. At Coalinga, Havenstrite Oil is fishing after redrilling to 6149 ft. with Covert No. 1 on Sec. 24-20s-15e. Original bottom is 6854 ft. Pray & Walker's Nidever No. 1 on Sec. 24-20s-15e went on the gas lift for a small amount of oil from 7862 ft. Superior Oil at North Coalinga is drilling in shale in S.P.L. No. 48-23 on Sec. 23-19s-16e.

Tulare County Test Abandoned

The Trico Oil & Gas Company exploratory well off the southeast border of the Trico field has been abandoned after drilling was carried to 4007 ft. The venture, No. 28-1 on Sec. 28-24s-24e, picked up three sands, which appeared to hold some promise. On formation trials, however, the zones showed water. The well was in Tulare County.

Porterville Wildcat Digs

At Deer Creek near Porterville in Tulare County, the Hudson Oil Company, Inc., is drilling at 2650 ft. with its Hudson-Fay No. 1 on Sec. 24-22s-27e.

San Benito Jobs Drill

Rowell, Corwin & Smith has reached a depth approximating 600 ft. in the Howell-Government No. 1 venture on Sec. 18-16s-11e at Vallecitos in San Benito County. Apparently there has been some circulation difficulties. C. W. Colgrove's Vallecitos No. 5 on Sec. 9-17s-11e is drilling at 1905 ft. Near

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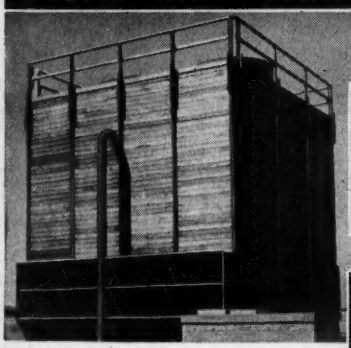

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the town of San Benito, Regent Oil's Baumgartner No. 2 on Sec. 26-17s-9e is drilling at 3600 ft.

Kings County
Well Redrills

Redrilling has reached 7204 ft. in the G. M. Russell, Robin Willis and J. R. Vaughn No. 24-1 wildcat in the Corcoran area on Sec. 24-20s-22e, Kings County. Whipstock was set at 6480 ft. for redrilling operations after the well was first carried to 8214 ft.

Round Mtn.
Try Plugged

Plugged and abandoned is the Pacific Supply Cooperative No. 1 test on Kern County Land Company ground on Sec. 13-28s-28e in the Round Mountain area. Total depth is 2387 ft., with top of gray Vedder sand at 2333 ft.

Paloma
Try Digs

Drilling deeper at 4329 ft. is Humble Oil & Refining's KCL No. 41-18 in the Paloma area of Kern County. Drill site is 3330 ft. south and 2310 ft. east from the northwest corner of Sec. 18-32s-27e.

Pleito Hills
Test Drilling

Stuck drill pipe has been worked loose and Richfield Oil continues to drill on down at 6924 ft. with its Pleito Hills No. 1 wildcat venture in the Pleito Hills of Kern County. Location falls on Sec. 6-10n-20w.

FOR SALE

40 acre lease ¾ of a mile northwest of Richfield Brady Estate Well #1. Now drilling in Section 13, T3N, R17W, in Aliso Canyon area, Los Angeles County. Box 26. c/o Calif. Oil World 10/20b

Jasmine
Try Idle

The H. A. Conway Quinn No. 1 on Sec. 15-25s-27e in the Jasmine area of Kern County is temporarily idle at 2872 ft. Location is on the famed Quinn Ranch, the scene of much prospecting.

Pioneer
Try Stands

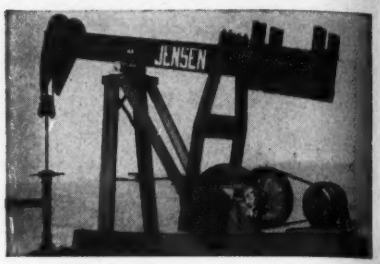
Drilled first to 10,769 ft. and then redrilled to 9024 ft., Shell Oil's KCL No. A-37-4 on Sec. 4-30s-25e in the Pioneer area is standing plugged at 4095 ft. Location is a few miles from the Canal field.

Cuyama Valley
Test Starting

Humble Oil & Refining Company is rigging up to try again in Cuyama Valley. The well, Santa Margarita Land and Cattle Company No. 2, will drill on Sec. 36-32s-19e in the vicinity of the abandoned No. 1. The first test went 2500 unproductive ft. Richfield Oil's Apache Unit No. 1 on Sec. 22-8n-24w is drilling and coring below 3750 ft. The company's Florence No. A-1 on Sec. 21-11n-27w is digging at 3780 ft. On Sec. 34-10n-27w, Alphonzo E. Bell Corporation is digging at 1200 ft. in Elliott No. 81-34. The Johnston No. 21-1 on Sec. 1-9n-27w has passed 2900 ft. and drilling deeper. Plugged back from 4768 ft. to 2100 ft., C. W. Colgrove is whipstocking his Kosanke No. 86-23 on Sec. 23-11n-28w. Wilshire Oil has locations for three drilling jobs at South Cuyama. They are No. 53-6, No. 54-6 and No. 55-6 on Sec. 6-9n-26w.

Buttonwillow
Wildcat Tests

Still undergoing tests is California Standard's KCL No. 27-6 on Sec. 5-28s-23e in the Buttonwillow area. Drilled to a total depth of 13,614 ft., the project thus far has not been very encouraging. Van Sicklin No. 45 near Lost Hills in Sec. 36-27s-21e is fishing at 12,658 ft. The hole is bottomed at 14,577 ft.



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Devils Den
Test Drills

In the East Devils Den sector, the Texas Company at last reports was drilling at 4160 ft. with its Capital Company No. 3-1 on Sec. 19-25s-19e. Tritex Oil Company is down 3583 ft. with its Tritex-Porter No. 1 on Sec. 16-25s-18e at Devils Den and fishing for drill pipe.

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Personalities IN THE NEWS

Griffith Named District Mgr. Superior Engine

W. M. Griffith has been named district manager of the southern area, Pacific Coast territory, of the Superior Engine Division of The National Supply Company. The announcement was made by Robert M. Pearson, manager of sales of the Superior Engine Division, which manufactures diesel engines at the Springfield, Ohio, plant of National Supply.

W. M. Griffith

With Griffith's appointment, the diesel engine manufacturer has established the second of two West Coast Sales offices. The other is located at Portland, Oregon, with northern coastal region sales in charge of Louis R. Shults.

Mr. Griffith's headquarters will be maintained at the Torrance, Cal., plant of National Supply, where Pacific Coast activities of the Superior Engine Division are directed by Lewis L. Livesley.

Before joining the Superior Engine Division staff, Mr. Griffith had served as sales head for Atlas-Imperial Diesel Engine Company of San Francisco.

Wesley E. Disney, Washington representative of the Western Oil and Gas Association in Los Angeles, plans to attend the Federal tax conferences in Denver, Colorado, October 27-29. The conference will be held under the join sponsorship of WOGA, Mid-Continent Oil and Gas Association and Rocky Mountain Oil and Gas Association.

Tad Travers, widely known in investment circles, is back in Los Angeles from a survey of oil properties in the Oak Creek area, Colorado.

Albert C. Pegg has been appointed a member of the Los Angeles Harbor Commission, succeeding the late Clifford S. Samson. Pegg is marine department executive of Union Oil Company.

Stark Fox, Oil Producers Agency at Los Angeles, was among California oil men in attendance at the meeting of the Independent Petroleum Association of America at Fort Worth, Texas.

Lieutenant Commander L. G. Kuhn, naval petroleum reserves inspector, discussed problems and methods of Alaskan oil operations at the meeting of the AIME at the Los Angeles University Club. Motion pictures of Alaskan operations were shown at the affair, which was composed of members of the Pacific petroleum chapter of the AIME.

Newly elected Officers at Ninth Annual Meeting of the Association in Dallas. Left to right, First Row: Ralph W. Marshall, Drilling & Exploration Co., Inc., Los Angeles, California Vice President for California; Warren S. Churchill, Arrow Drilling Company, Dallas, Texas, Incoming President; Joseph S. Morris, Allen & Morris, San Antonio, Texas, Retiring President; Joseph V. Dunbar, Dunbar Drilling Company, Salem, Illinois, Vice President at Large; Louis A. Beecherl, McDaniel & Beecherl Drilling Company, Dallas, Texas, Treasurer. Second Row: J. F. Postelle, Odessa, Texas, Vice President for West Texas and New Mexico; Zach K. Brinkerhoff, Jr., Brinkerhoff Drilling Company, Casper, Wyoming, Vice President for Rocky Mountains; H. L. Rowley, Big Chief Drilling Company—Mississippi, Vice President for Cretaceous and Tertiary Basins; J. Doyle Settle, A.A.O.D.C., Dallas, Texas, Secretary; Marion S. Church, Dallas, Texas, General Counsel. Third Row: Brad Mills, A.A.O.D.C., Dallas, Texas, Executive Vice President; R. W. Wire, Loffland Brothers Company, Tulsa, Oklahoma, Vice President for Central Mid-Continent; Ira Van Tuyl, V-T Drilling Company, Evansville, Indiana, Vice President for Illinois, Michigan, Indiana and Kentucky; Roger J. Wolfe, Grey Wolf Drilling Company, Houston, Texas, Vice President for Gulf Coast. Not Present at Meeting: J. A. Fox, Washington, Pennsylvania, Vice President for Cable Tools; J. J. Harrigan, Standard Well Service Company, Oklahoma City, Oklahoma, Vice President for Well Servicing.

Lon D. Cartwright has been appointed Chief Geologist for all of Union Oil Company's operations, effective October 1, 1949. Mr. A. C. Rubel, Vice-President in charge of Exploration and Production, announced recently. Mr. Cartwright will be responsible for the correlation of all geological, geophysical and exploration activities of the various divisions and will direct all activities outside of assigned division areas.
Mr. Cartwright joined Union Oil in 1939 as Gulf Coast Division Geologist and was later appointed Chief Geologist for this area with headquarters in Houston. Mr. Cartwright is a member of the Geological Society of America, the American Association of Petroleum Geologists, and the American Institute of Mining Engineers.

E. L. Decker Makes Extended Trip

E. L. Decker, President of Martin-Decker Corporation, Long Beach, attended the annual meeting of the American Association of Oil Well Drilling Contractors. From Dallas he went to Houston to confer with Reed Roller Bit Company, Mid-Continent distributors for Martin-Decker. His itinerary then took him to Casper, Wyoming, where he met Mutt Donovan and they motored to Calgary and Edmonton, studying Canadian conditions.

Rees On South America Trip

Earl Rees, popular Patterson-Ballagh export manager is currently renewing acquaintances in Mexico City enroute to South America. After visiting the oilfields in Venezuela and Trinidad, Rees will return via the Patterson-Ballagh New York office.

Leschen Announces Executive Promotions

A. Leschen & Sons Rope Company, St. Louis, Mo., announces the election of Arthur A. Leschen as president, and Douglas W. Vernon as vice-president and general manager.

Mr. Leschen came with the company in 1902 after having attended Washington University. He is a grandson of Adolph Leschen who founded the company in 1857, and the brother of Harry J. Leschen, who was president of the company from 1915 to 1942. Since 1943 Mr. Leschen has served as vice-president in charge of production. He succeeds the late William C. Henning who was president from 1943 until his recent death.

Mr. Vernon became associated with the Leschen Company in 1945 as general manager of sales. In 1947 he was elected vice-president in charge of sales. In addition to his new duties as general manager he will continue to direct the activities of the Sales Department.

Howard D. White has announced that he will resign, effective October 31, as executive vice president of the Liquefied Petroleum Gas Association. He will become associated with a recently organized business at Albuquerque, New Mexico.

George Parker Ryan, Oilfield Testing and Engineering Company of Los Angeles, has returned from an extensive tour of the leading cities in Europe. His trip carried him through the British Isles, France, Italy and Germany.

Back from a short vacation in Northern California is C. G. (Tommy) Williams, vice president of Universal Consolidated Oil Company.

A former Standard of California executive vice president, John O. Galloway, who now is a prominent oil consultant, has been retained by the Canadian Bank of Commerce due to the growing importance of oil in Western Canada.

R. G. Greene has been appointed Union Oil Company's Manager of Exploration, Pacific Coast, effective October 1, 1949, and will be responsible for both exploration and land activities, A. C. Rubel, Vice-President in charge of Exploration and Production, announced recently. Mr. Greene previously had been Manager of Lands.
Mr. Green joined Union Oil in 1925 as a geologist in Venezuela, returning to geological assignments in California, Montana and Canada. Mr. Greene left the Company in 1931 and returned in 1943 to undertake exploratory work in Montana and Washington. He became Manager of Lands in 1946.

Clark Bros. Co., Inc., of Olean, New York, announce with deep regret the death of their advertising manager, Mr. John L. York. Mr. York passed away after an extended illness.

In commenting on his passing the company states: "He had been a very faithful and untiring employe for the past 7 years, and his humor and helping hand will be sadly missed by everyone who knew him."

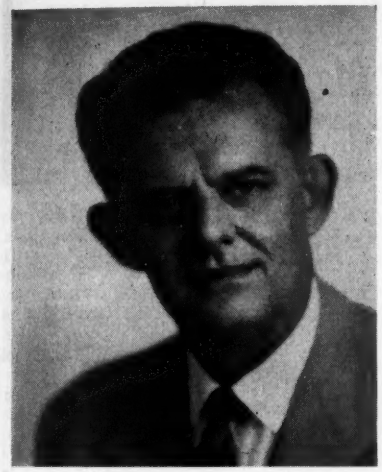
Succeeding Mr. York as advertising manager is Mr. Charles M. Graff.

New chief geologist for Seaboard Oil Company in the Rocky Mountain area is A. W. Witt. He formerly was assistant chief geologist for the company in California.

Norris Johnston is the new president of Petroleum Technologists, Inc., Montebello, California, consulting firm. Johnson's former post was chief physicist for General Petroleum Corporation in charge of production research.

Lane-Wells Canadian Company Established

Lane-Wells Company, suppliers of technical oil field services, announces the establishment of the Lane-Wells Canadian Company, according to Rodney S. Durkee, president. Headquarters for the new company will be located in Edmonton. A sales office will be located in Calgary.



C. F. Ludwig

The new company is established to meet the rapidly growing demands for technical oil field services in the Alberta Fields. Lane-Wells Canadian Company will offer complete facilities for perforating—bullet and Koneshot—, Radio-activity Well Logging, packers and drillable bridging plugs.

Officers are Rodney S. Durkee, President; N. L. Dorn, Morton T. Higgs, Jas. D. Hughes, C. F. Ludwig, vice-presidents; D. S. Jeppson, secretary-treasurer; W. A. Miller and L. H. Ingle, assistant secretaries and assistant treasurers. C. F. Ludwig, formerly Gulf Coast Division sales manager, is vice-president in charge of operations. All other officials are active in Lane-Wells Company.

C. F. Ludwig, formerly Sales Manager for Lane-Wells Gulf Coast Division, will be the vice-president in charge of Lane-Wells Canadian Company operations. Ludwig has been associated with the parent firm since 1937. Prior to his appointment as Gulf Coast Division Sales Manager in 1947, he had been District Superintendent in the Company's Kansas, Corpus Christi and Alice, Texas Districts.

Jack Henley will be Sales Engineer-Geologist for Lane-Wells Canadian Company. Henley is a graduate geologist, receiving his degree from the University of New Mexico in 1941. He was a Naval aviator during World War II, with the rank of Lieutenant. He joined Lane-Wells Gulf Coast Division in June of 1947, as a service representative. Prior to that he had worked for the Humble Oil and Refining Company.

The decision to establish complete facilities for the company's technical services in Canada was made following several months investigation. A detailed study was made of the local geology and operating conditions to determine the applicability of Radio-activity Well-Logging in the Alberta area. J. Murray Walker, Lane-Wells Export Sales Engineer, conducted this study, assisted by a field crew comprised of Burt Garver, and J. B. Thompson.

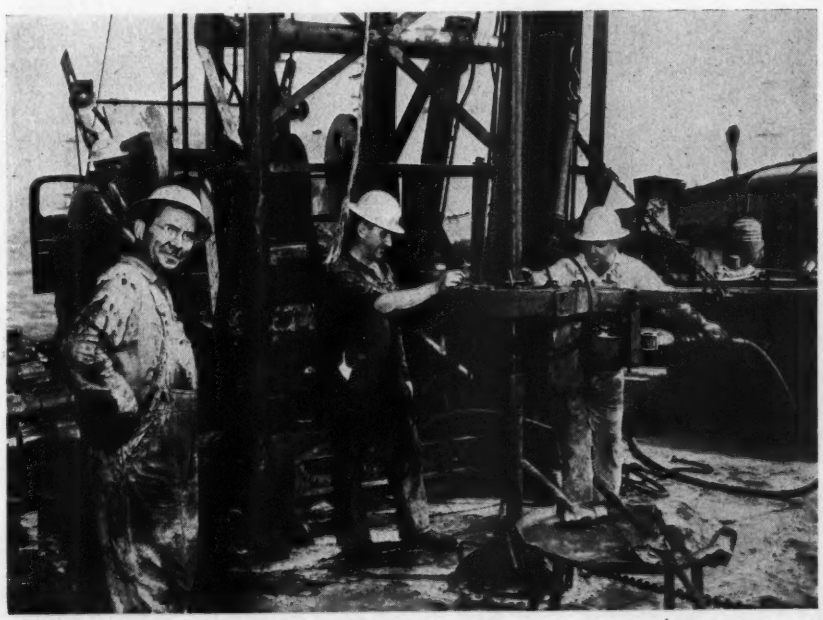
During a two month period, selected jobs were accepted from a number of interested oil companies. These Gamma Ray and Neutron Logs taken in wells over a wide area revealed sufficient useful information, to indicate that the Radio-activity Well Logging process would function effectively in Canadian fields.

The Pacific Industrial Conferences will be held concurrently with the 1949 Pacific Chemical Exposition in the Civic Auditorium at San Francisco November 1-5. Howard G. Vesper, president, California Research Corporation, will speak on liquid petroleum. S. H. McAllister, associate director, Shell Development Company, will discuss oil shale. Roy Wehe, consulting engineer, will talk on gas.

Eat, drink and be merry for tomorrow you may be radioactive advises Ashley DeWitt, Los Angeles contract driller and oil producer.

J. E. Phillips, Standard of California excise tax counsel, was a principal speaker at the annual meeting of the California Manufacturers Association At the Los Angeles Ambassador Hotel. Another chief speaker was S. H. McAllister, Shell Development Company director of research.

Appointment of Harold C. Miller as director of Region III under the Bureau of Mines reorganization plan, has been announced by bureau director James Bod. Miller has been supervising engineer of the bureau's field office at San Francisco.



Well pulling crew on Standard Oil Co.'s well, LAI No. 89 in the Inglewood field. Left to right: Bill Bruner, well puller; Tommy Brick, well puller; Pat Larity, well puller; Gene Heiertz, operator.

Hughes Forms Canadian Co.

Hughes Tool Company has formed a Canadian Corporation, Hughes Tool Service Limited, with headquarters in Calgary, Canada. A group of Hughes sales executives made an extended trip in August to Canada to set up operations, increasing personnel with Canadian citizens.

The company is constructing its own main warehouse in Edmonton and will lease rock bits through its authorized distributors patterned after their United States operations, with stocks maintained at strategic points.

Through the policy of leasing Hughes Bits, the field organization of Hughes Tool Service Limited will constantly examine worn bits and study drilling problems affecting bit wear and performance. When unusual performance occurs, bits are frequently returned to the research and engineering laboratories in Houston together with field engineering reports for further examinations. Through this method the users of Hughes products and the drilling industry receive the benefits of constant improvement.

H. E. Snelson, a Canadian, formerly Rocky Mountain Division Engineer and well-known throughout Canadian and Rocky Mountain fields, has been made Canadian District Manager. R. T. Helmer continues his duties as Canadian District Sales Representative.

Officers of the Hughes Tool Service Limited are: M. E. Montrose, President, Houston; W. L. Hunter, Vice President, Oklahoma City; F. E. Jacobs, Treasurer, Houston; and R. T. Helmer, Secretary, Calgary.

Photographed with the Hughes Tool Lockheed plane in Canada are, left to right: M. E. Montrose, Vice President—Sales, Houston; W. L. Hunter, Northern Region Manager, Oklahoma City; S. J. Lintzenich, Rocky Mountain Division Manager, Casper; H. E. Snelson, Canadian District Manager, Calgary; R. T. Helmer, Canadian Sales Representative, Calgary; E. R. Woodmansee, Manager Tool Joint Sales, Houston.

Hundreds of the country's top financial and industrial figures heard H. D. Collier speak at the Los Angeles Stock Exchange luncheon honoring the contributions of the securities industry to manufacturing. Collier, chairman of the board of Standard of California, cited the opportunity for public investment offered by cooperaton between finance and industry in raising the funds necessary for the expansion and construction of industrial plants.

William T. Dinkins, 60, vice president, general sales manager and a director of Richfield Oil Corporation, died at his home, 425 North June street, Los Angeles, after a brief illness. Dinkins joined Richfield in 1937. He previously was with Sinclair Oil Corporation. Born in Chicago, he was a captain in the 128th Field Artillery during World War I and was wounded in services overseas. He was a member of the API, the University Club and California Club in Los Angeles. He is survived by his widow, Mrs. Demar Gossard Dinkins, and a brother, John H. Dinkins.

The late Edward Abrams, veteran Pennsylvania oil producer and father of popular Johnny Abrams of the California oil fraternity, was an ardent prohibitionist. On one of his frequent trips to Europe, Johnny relates, the senior Abrams to his chagrin, spied on a main street of Cardiff, Wales, what was called "Abrams Temperance Bar." Incredulous that anyone would stoop to thus sully the proud name of Abrams, Johnny says his father investigated further and to his intense relief found that the pub was given over to serving nothing stronger than tea, coffee and cookies.

Whittier Job Digs

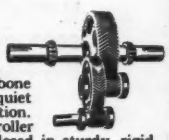
Sansinena No. 22, a Union Oil Company drilling job in the Whittier area on Sec. 30-2s-10w is drilling at 5330 ft. Sansinena No. 20 on the section was completed recently for 275 barrels from 5443 ft.

You Can't Buy a Better Pumping Unit than an EMSCO

Emsco pumping units are designed and constructed to give day-in, day-out, uninterrupted, trouble-free service. Painstaking care in design and engineering, plus the use of highest quality materials and workmanship give Emsco pumping units built-in characteristics that mean long, efficient and economical service. The extreme care exercised in the selection of the proper bearings typifies the research, engineering and skilled workmanship that goes into every Emsco pumping unit. That's why you find Emsco pumpers equipped with over-size, trouble-free roller bearings on all shafts; why self-aligning spherical roller bearings are used on the wrist pins; and why the center iron and equalizer assemblies have heavy duty, needle-roller bearings. These and many other design and construction features make Emsco pumping units the finest on the market, regardless of cost. Manufactured in standard and floor-clearing units for shallow, medium and deep pumping, with a range of speeds and strokes to meet all requirements.

ROTARY COUNTERBALANCE

Wing-type counterbalance supported and pivoted from crank arm. This exclusive Emsco feature permits safe, quick, easy and accurate adjustment from zero to maximum effect, which is done by one man working at ground level. It also permits shipping of pumper complete with counterbalance attached.



PUMPER REDUCER

Flood-lubricated herringbone gears and pinions provide quiet and efficient speed reduction. All shafts are mounted on roller bearings. Entire unit enclosed in sturdy, rigid case provided with an easily removed cover.

EQUALIZER ASSEMBLY

Pressure grease lubricated equalizer bearing assembly permits free movement in two planes assuring perfect self-alignment. Relief valve protects grease seals.

PACEMAKERS IN OIL FIELD EQUIPMENT DESIGN

EMSCO DERRICK &

Houston, Texas • LOS ANG

EMSCO

REG U.S. PAT. OFF.

LESS THAN A *Pound!*

You can easily hold it between your thumb and index finger.

It is one of the many intricate castings made by Kay-Brunner for leading manufacturers. Producers of oil well tools, transmission machinery, agricultural equipment, concrete mixers, trailers, and ceramic equipment are among the many industries served by Kay-Brunner.

Regardless of how small the casting in weight or quantity, there are several good reasons why you should give it to Kay-Brunner!

OR MORE THAN A *TON!*

2,532 pounds, to be exact!

It's a giant casting, made of special steel to harness a gusher... KAY-BRUNNER high-pressure steel, of course. Made for The Schaffer Tool Works for their famous cellar control gates which are used the world over in oil drilling. It handles the highest pressures that oil drillers have ever encountered.

Many producers of large pressure units use Kay-Brunner for their casting requirements.

KAY-BRUNNER

KAY-BRUNNER STEEL PRODUCTS, INC.
999 MERIDIAN AVE., ALHAMBRA, CAL.

LAUGH THIS OFF!!

"Know how big the national debt is? No? Well, it's over $250 billion, and remember this: Only a little more than one billion minutes have passed since the birth of Christ."—Dale Carnegie.

He: "I suppose you dance."
She: "Oh yes, I love to."
He: "Great! That's better'n dancing."

"Is he a highbrow?"
"Well, he can discuss sex so he makes you think he means it in a purely intellectual way."

She: "A woman's physical charms are her chief weapons in the battle of love."
He: "Well, one thing is sure. You will never be arrested, dearie, for carrying concealed weapons."

The old alumnus was disparaging the skill of modern football players.
"When I was in college," he boasted, "I helped California beat Stanford for three years straight."
"Is that so?" queried the quarterback. "And which team did you play on?"

"Girls," said one of the P.T.A. members, "you may think your husbands are helpless, but you should see mine. Why he is so helpless that when he sews a button on his coat or darns his socks, I have to thread the needle for him."

In reply to a question by an attorney, the witness tesified:
"He said that you are a sculptor, but that you should bathe more often."
The attorney scowled and demanded:
"Give me his exact words."
And the witness hesitatingly answered:
"Well, he said that you are a dirty chiseler."

Friend: My wife can be an angel when she wants to be.
Man: Mine, too: any time, now.

Walt: "Do you know what good clean fun is?"
Mildred: "No, what good is it?"

Baby kangaroo kept jumping out of mama's pouch. Papa kangaroo kept putting him back. Finally Papa slapped baby's ears and slammed him back for the 20th time. "You shouldn't have done that," said Mama," can he help it if I've got hiccups?"

FAST SERVICE!

Exclusive West Coast Distributor for...

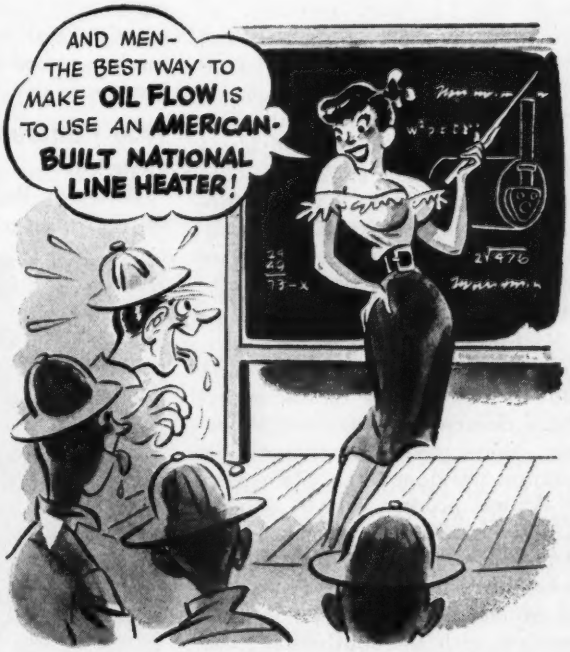
Wilson

power-driven drilling rigs and power hoists

DISTRIBUTORS FOR

Gas and Diesel Engines
Ruger Hydraulic Floor Cranes
All Types Wire Rope
V-Belts
Web Wilson Oil Tools
Diamond Chain
"Luber-Finer" Oil Cleaners
Alemite Systems
Other Oil Field Specialties

POWER RIG & EQUIPMENT CO., INC.
5141 Anaheim-Telegraph Road, Los Angeles 22, California



Pipe-line superintendents, foremen, engineers are nuts about the way American-built National Line Heaters make oil, gas, water flow like crazy. American's service engineers are ready to help you boost production and save money 24 hours a day. Call American Pipe & Steel Corporation, 2201 W. Commonwealth Ave., Alhambra, Calif. CUmberland 3-2181. ATlantic 2-3115.

Fluor Makes Important Announcement

The Fluor Corporation, Ltd., Los Angeles, announces the conclusion of an agreement with the Mathieson Chemical Corporation, New York City, whereby The Fluor Corporation becomes Mathieson's sole licensing agent for the engineering and construction of sulfur recovery plants in the United States and Canada. The plants engineered by Fluor will embody Mathieson's SASCO processes for the recovery of sulfur from hydrogen sulfide gas, acid sludge, and similar refinery waste products.

According to the agreement, Mathieson will grant licenses for the use of its sulfur recovery processes only to those firms nominated by The Fluor Corporation and will supply the necessary technical information, as well as the services of technicians, who will assist in the design and operation of plants licensed under the agreement. The Fluor Corporation will be employed to construct those sulfur recovery plants which Mathieson will require for its own use and will be recommended for the construction of similar plants to be owned by others.

Mathieson now owns and operates the first two plants that were built in this country for the recovery of elemental sulfur from hydrogen sulfide gas. The Fluor Corporation developed the Fluor Glycol-Amine process which is used extensively for the separation of hydrogen sulfide gas from natural and refinery gases. The Fluor Glycol-Amine process works in conjunction with the Mathieson process by recovering the pure hydrogen sulfide gas from which elemental sulfur is produced.

With the Mathieson processes, it is now possible for operators of refineries and natural gas-gasoline plants to convert their waste acids and gases to pure elemental sulfur which is currently being consumed at the rate of 4,840,000 long tons per year in the manufacture of fertilizer, insecticides, chemicals, petroleum products, paint and pigments, coal products, rayon and cellulose film, explosives, textiles, etc.

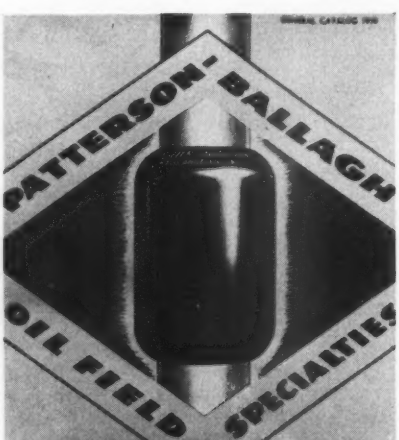
Perfo-Jet Perforates Record Producer

The Standard Oil Company of California completed their Mushrush well No. 5, in the Wasco field, Kern County, in the Eocene sand. The well was perforated with the Perfo-Jet process by the service division of Byron Jackson Co., at intervals between 15,250 feet and 15,530 feet, where hole temperatures up to 325 degrees were recorded.

640 Perfo-Jet perforations were made on this well, which is approximately 1,000 feet deeper than the former record-holder in the West Poison Spider Field, Wyoming.

1950 Patterson-Ballagh Catalog

Patterson-Ballagh, manufacturers of oil field specialties, has announced the availability of a 52 page catalog covering its complete line of equipment. The catalog includes protectors and stabilizers for drill pipe, wire line guides, wipers, both drill pipe and Kelly, bumpers for travel block—links—swivel—and crown. A complete description of mud guns and production items rounds out the Patterson-Ballagh catalog. Catalogs are available through P-B field representatives—or Houston office, 6247 Navigation Blvd., or home office, 1900 East 65th St., Los Angeles 1, California.



Gordon Greene Adds to Lines

In a recent release, Gordon Z. Greene, long time West Coast oil and gas specialist, announces the considerable expansion of his organization and interests. The firm, Gordon Z. Greene Co., is now exclusive distributor in California for Commercial Iron Works of Los Angeles, manufacturer of leveling saddles, and orifice fittings, including orifice flanges and meter plates. It is also exclusive agent on the Pacific Coast for the Vulcan Proofing Company of Brooklyn, N. Y., which specializes in rubber coated materials for meter and regulator diaphragms. In addition, the Greene organization is California agent for the Chaplin-Fulton Manufacturing Company of Pittsburg, Pa., makers of high and low pressure regulators and relief valves; represents Research Control Instrument Company of Tulsa, Okla., designers and manufacturers of miniature control valves, panel-board clocks, and other fine mechanisms. The Greene Company also has made to its own specifications in various Los Angeles machine shops such items as meter houses, thermometer wells, pressure gauges, drip pots, large capacity gas filters, calibrated and bored meter runs, and other items pertinent to the natural gas processing and refining industries.

Gordon Z. Greene, president of the Company, has for many years been an active member of California Natural Gasoline Association, of which he was for some time entertainment chairman. He has a wide experience in oil field gas operations and is well and favorably known over the entire West Coast oil area. He is active, too, in the Southern California Meter Association, the Pacific Coast Gas Association, and Rio Hondo Country Club, and he is a familiar figure at all gatherings of gas operators and supervisors, where he is usually to be found functioning in some sort of executive capacity.

White Introduces New Diesel Power Unit

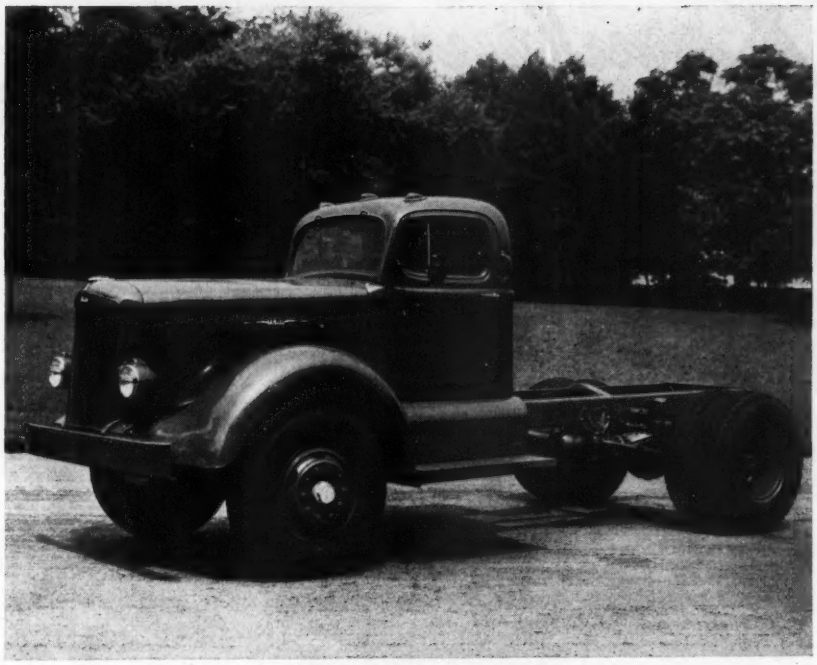
The White Motor Company has just announced a new line of Diesel power units, built especially for the Western market. According to Wilson D. Patterson, White's Pacific Coast Regional Manager, these White diesel models follow White's traditional policy of using high alloy light-weight steel, plus proven aluminum units which will give these White diesels unusually high payload capacities.

The Western diesels in both trucks and trailer models will have special transmission and auxiliary transmission which will provide additional gear reductions to fit the special requirements of the eleven Western states.

These new diesel units, plus the regular WC series of conventional trucks and tractors and the revolutionary new White 3000 series, puts White in a position to satisfy all requirements wth the most efficient type of equipment.

White's diesel line is designed and built in close conformity with the needs of the Western user, and presents many advantages. Excellent balance and unusually good roadability are inherent in the new line. In addition, the vehicles present a most favorable appearance. Powerful engines and gear ratios to meet all conditions assure top efficiency in operation.

White Diesel truck models include the WC-28D with wheelbase ranges from 134" to 224", the WC-32D in wheelbases from 146" to 224", the WC-2864D six-wheel unit in wheelbases from 176" to 212", and the WC-3246D six-wheel unit in wheelbases from 134" to 158" and the WC-2864TD six-wheel unit in wheelbases from 158" to 176".



White Diesel Truck Model WC-26TWD is equipped with HRB Cummins Engine. This model should be of particular interest to the Western operator. Available in the tractor and six-wheel models, it has all the light-weight advantages of the other models in the new White diesel line.

White also builds another diesel model of great interest to the Western operator. It is known as the model WC-26D and is equipped with HRB Cummins engine. It is available in the tractor and six-wheel models and, of course, has all the lightweight advantages of the other models in the new diesel line.

The White Diesel models are powered by the Cummins NHB-600 Diesel Engine of 743 cu. in. displacement, developing 200 horsepower at 2100 RPM and a torque of 535 lbs. ft. at 1200 RPM. Fuel system includes tractor oil bath type air cleaner and fuel tank of 44-gallon capacity. The muffler and stack of the exhaust system are mounted at the right rear corner of the cab. Starting motor is of the 24-volt, straight drive type, and the generator is the 12-volt, 50 ampere type with current and voltage regulation.

Standard specifications include a front axle of the 12D Reverse-Elliot type and rear axle of the single reduction, full-floating type with gear ratios of 5.29. Propeller shafts are of the Spicer, needle bearing, 1800 series. Service brakes are of the four-wheel, internal expanding, air-operating type for the four-wheel units, and six-wheel type for the six-wheel trucks and tractors. A four-shoe disc hand brake, mounted on the frame at the rear of the transmission, is used. The frame of the chassis is of the single channel type, made of chrome nickel steel, S.A.E. 3125, heat treated.

The steering gear on White-Diesel models is of the twin lever and cam type. Front springs are semi-elliptic, and rear springs are semi-elliptic wth auxiliary. The instrument panel of the cab is of the built-in type with detachable sub-panel for servicing instruments.

The White-Diesel series, under test for some time, has demonstrated its advantages from an operation standpoint. For heavy-duty highway hauling, there is a model to suit every load and operating condition.

Kern County OIL NEWS

BIGGEST NEWS of the month definitely related to the OILWIGNESS of the County called KERN came over the vocal cords of a newsboy who cried, "OILWIGS HORSE WINS TOP HONORS. . . . read all about it".

AND SO "Benton Purple" number one hundred and one driven and 'ridden' by JOE BLACKWELL (no relation to Blackwell's or Keck's Corners) grabbed off the big blue ribbon at Kern County Fair after the "AH's" by thousands of spectators . . . who had made up their minds long in advance of announcers.

OWNED By Wm. Keck, Jr. the "hoss" did the industry and county proud. Congratulations BILL KECK for your contribution to Kern County Fair that certain Saturday evening when the Roadsters, Combination demonstrated the grand classic of the evening—and —your showmanship brought glory to the county and to the event.

Left to Right: H. C. Smith, president and Herschel C. Smith, production superintendent, of the H. C. Smith Oil Tool Co.
Shown in the picture is a 32" H. C. Smith 4-point rock bit which was used in water-well drilling in the San Joaquin Valley. This bit made over 3000' of hole. The H. C. Smith 24" 6-point hole opener shown is consistently used successfully in water-well drilling in Arizona where top hole boulder conditions exist.

BERT GREEN says that we are just kinda going back to the old 1920 days or less . . . (who remembers them days?) . . . when producers of heavy crude will just have to forget it. He says the oilwigs out at Rio Bravo and parts will get the nod to go. He says this unknown potential in the deep zone areas of the world is high in demand and it is economical to produce which offsets the other costs of production. Somehow he thinks too, that a lot of this new heavy drilling program had to come to an end and everybody knew it but the last leaseholder perhaps.

CALLED UP GOOD old Barney Barnard . . . wasn't home . . . wife talked . . . Said she, "well Barney is gone . . . the oil business, don't know too much about it . . . but as usual there seems to be "lots of popping" . . . but you had better see HIM. To us that is about the best kind of cheerful news from anybody. It is nice to blame things onto someone or something else.

BIG MEETING this month . . . of Independents too (more or less) . . . but not entirely. All are hopeful . . . and many by this time will have heard from "TS"—T. S. PETERSEN who to some inside and outside . . . (Standard Oil) will have been impressed. Many are awaiting at this writing for the principal speaker. PETE as he so graciously admits lovingly to be called, came up the hard way in Standard. He knows about the marketing department too.

GAGE LUND for RED STONER (our own pride and joy) especially in domestic production . . . is

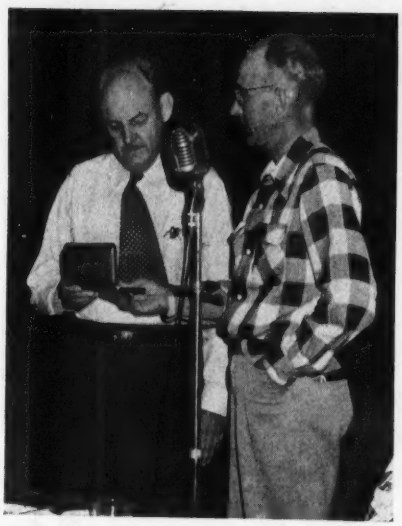
constantly more active in domestic affairs of USA-KERN commerce instead of foreign importation items.

STANDARD'S new report gives as you know only two exploratory wells. Timely with this WASCO'S deepest-in-the-world producer, can sell some gas if necessary.

BIG A.A.P.G. meeting at Ambassador . . . the Pacific Division or Section had some real information this year. Kern feels like an empty house it seems when this meeting takes place . . . Everyone of any importance or nuisance takes on the responsibility of improved "knowhow getting" at these sessions.

HARRY CROSSAN is heading up the Bankers San Joaquin Group at Fresno this season, and he went into session with the members recently to discuss of all things the problems that try to become barriers to any profits under the voluntary society in American free enterprise system. Shame on him.

HUGH MCCAY has not been in the oilnews for some time . . . Yet almost anyone will vouch for his need in the industry despite newsmaking ability. Mac just keeps chugging along . . . nobody is excited or concerned over his ability or . . . non ability to produce any scare words about "world conditions". MAC thinks we are going to have them anyway.

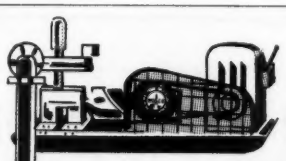


AT TAFT THIS MONTH Supervisor A. W. Noon received a life membership in the Exchange Club. In recognition of his work as a public servant the Westside Oilwigs turned out to appreciate Noon's effort in his third term as Supervisor. Members of the community from 20-30 Club to the Rotary helped show appreciation. Dave Merrill, President of Exchange, does the presenting here.

YES WE HAVE HAD IT . . . the weather that is . . . highest of any October if you please . . . running up to 92 plus . . . humidity and all.

OILMEN claim that the drive here for employment of handicapped folks is not only the most intensive, appealing but the most effective due to employment of these physically handicapped people.

"OILMEN IN THE NEWS" shows that MR. . . . M. H. Stansbury was chosen as director to the Oilwell Drillers group. He was named Pacific Coast regional director of the American Association Oilwell Drilling Contractors, at Dallas Texas recently. Also named directors of the Pacific Coast region



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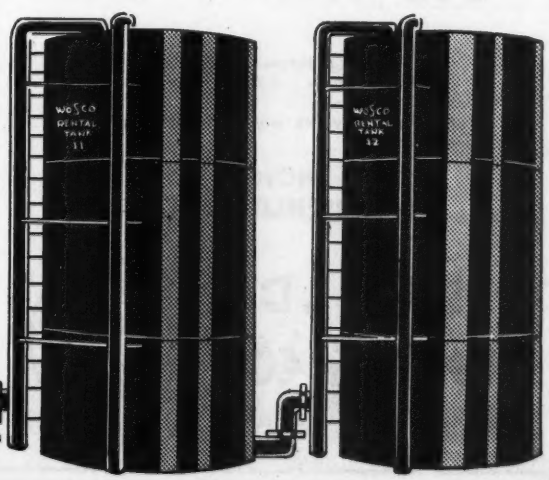

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were: W. W. Cline and Thomas P. Pike of Los Angeles; J. K. Kellogg of Compton, and R. A. Powell, of Santa Fe Springs. Our hearty congratulations of course and naturally.

PRICE LOWERING for crude oils here is something like the weather in July . . . nobody knows who commenced it, or who should end it.

INDUSTRIALS on the Exchange which have set a new high for this year form a piece of cheerful news for oilwigs of Kern. To many in the "whyhow" this means something. We are not mentioning OILS. Future predictions "WOBBLY". This applies to some of Kern's interests.

BEFORE WE COULD correct it, it happened. Bakersfield Press did announce suspension intended . . . but before it quit it had started . . . up again and we are all glad that it had support to carry on.

OILMEN'S COUNTY SUPERVISOR A. W. Noon of Taft was given an Exchange Club life membership at Ford City Park last month. "For his faithful service to the community and for those in the oil industry and allied occupations," was recited as reasons.

SLECTOGRAPH is aid to Frank Hornkohl as well as his clients. Here Frank just turns a button to find out instantly what is wrong with anything. Oil, salt, ores, water, hit and run victims. Toothpics, mud, cores, robbery, safe cracking, and what have you.

MILDRED FOLEY who has long been identified with E. A. BENDER Corporation, is recently connected with the OCEANIC OIL COMPANY. Last month Miss Foley was hospitalized unexpectedly at Mercy Hospital . . . but is quite recovered at this time.

SPEAKING OF THE HOSPITALIZED . . . many friends of PAT PATTERSON will be happy to know that he is returned from the hospital where a very delicate operation has rendered his recovery a very slow one. Co-workers at SHELL OIL COMPANY and his fellow Petroleum Engineers and geologists wish him a speedy as possible recovery through these columns.

MARY INGRAM of the Conservation Committee is also just back from the hospital but fully recovered and working with the MERS as usual.

HERM WEDDEL reports that the "status quo" is just that. No one is doing anything spectacular anymore, which he claims is a good sign. A good sign of sanity.

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planned as we go to press by everyone in this community.

FRANK HORNKOHL LABORATORY is doing a real land office business. New improvements for traffic are assisting in running down everything that looks like radium or oil. Latest chemical gadgets are things dissolved to brighten up brick, cure seasickness, catch criminals, and define hit and run drivers.

SIGNS OF AUTUMN are always accompanied by oil meetings and so forth. The oil derrick from Rocky Mountain drilling right off the highway ads to the Arvin landscape . . . its winery and new high school.

PEOPLE AT THE POMONA AND STATE FAIR have written us about oil. Said one elf, "has oil dried up in Kern County yet". May we recommend state recognition for oil exhibits, or is it like coal at the Penn State Fair.

FRANK LATTA, curator of the Kern County Museum has just this past month released from the press his "BLACK GOLD IN THE JOAQUIN". This is a first in the nation and should rate tops by the oilmen of the country. This historic recording of oil dates back to almost a century and reads like a best seller filled with thrilling accounts handed down from authenticated sources. Chock full of a wonderful selection of pictures, the book will go to several editions it is predicted.

THIS IS THE STORY we have been telling about. Some of the accounts as early as 1937 and recently the past four years have reported in this column. Without hesitancy may we recommend it.

Kern days are now grown shorter. You can feel the autumn air. The early, late and afternoon breeze has begun to carry a sharp tang. And the hayseed feeling for fairs and exhibit glamor is ever presently growing weaker in exchange for cruel facts to face back home . . . the expense exhibits are ever stable.

ANNUAL HIGHLINKS out at Coalinga should have been a grand success as was expected . . . we couldn't go . . . told J. C. Chescheir so. Blind bogey golf lasted all day . . . horseshoe events took place too. Great success to your CHESCHEIR.

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AT THE KERN KLASSIC for equestrian lovers we saw Belridge's BANDEROB and friends posted in their box seats. Excitement ran high when thirty steeds all over a ton a piece presented the old draft team spectacle. By far the Kern County Horseshow is the best in the West.

TEX NEWBY of Southern California Gas was assigned the job last month of organizing a countywide OIL DEPARTMENT for Kern. Tex kinda believes that such an organization of publicity and information can do lot of good for not only the oilwigs but the people who think oil is just another reason for a service station. Divisions of the big committee will consist of a commit-

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tee on CRUDES, GASOLINE, GAS, LUBES, DRILLING, EXPLORATION, CONSERVATION SUPPLIES, AND VALUATIONS. If he can get the right committee chairmen looks like a good deal and he has already gone to work. Names submitted and suggested by the oilgentry at large are: PAUL HOWARD, HARRY HOPKINS, TED FISHER, KEN SHAFER, GEORGE SUMAN, and B. W. McCUNE.

LAST MONTH at a countywide meeting the assessed value of oil for Kern was predicted to take a fifty million dollar drop in tax rolls 1950.

FORMER MAYOR CLARENCE A. WILLIAMS of Taft who carried the bottle of oil from the deepest producing well in the world out at Wasco, and finally got to present it to the Junior Chamber of Commerce of MEXICO CITY has signed up for next year it is rumored . . . in Latin American tour headquarters.

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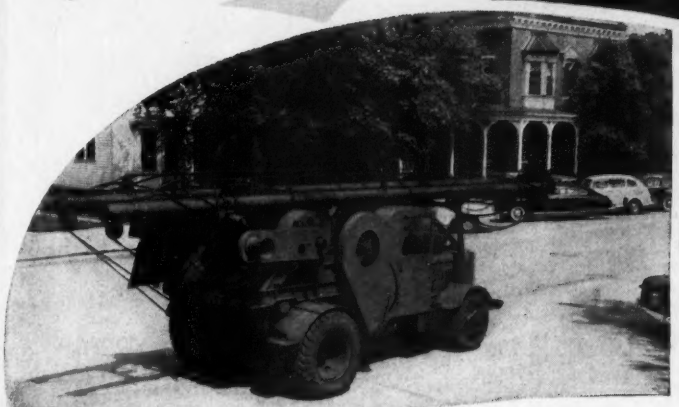

or muddy fields

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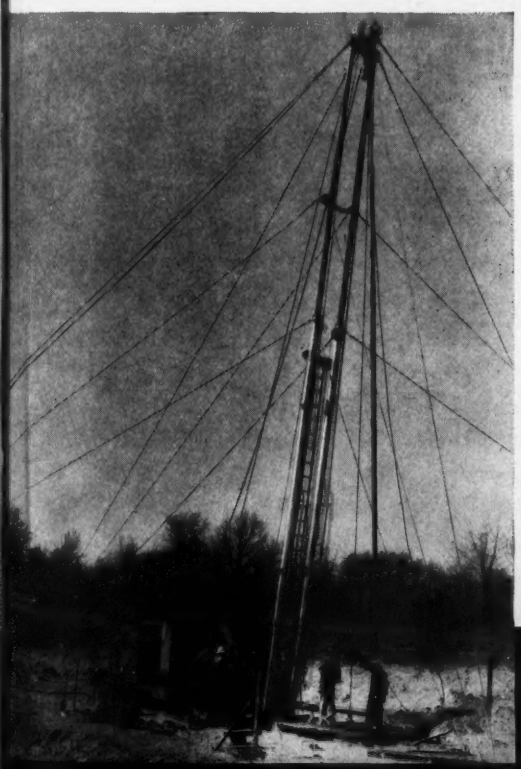

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